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HINTS ON COUNTRY HOUSES.

Number Eleven.

FURNITURE AND HOUSE-FURNISHING.

In drawing these papers to a close we propose to recur once again to the important question of furniture and house-furnishing, with especial reference to the proper style of furniture for country houses inhabited by persons of moderate means. Every body knows that somewhere about the months of May and October, radical changes are made in the interiors of houses, both in town and country, to suit the character of the coming season. In preparation for summer, carpets are taken up and replaced by matting; and heavy curtains—where curtains are used—are taken down and lighter ones substituted, or else venitian blinds take the place of the latter. These modifications are excellent in their way, and comfort and custom alike yield willing sanction to them. The furniture, properly so called, undergoes however, no modification, and as tables, chairs, sofas, &c. are established in permanence, no matter whether the season be summer or winter, and as when these important adjuncts are once bought they are rarely changed—at least in the rural districts—during the lifetime of the head of the family, it is well worth while considering as to whether they harmonize with the condition of the occupants with the wants of country people and with the character of the dwelling and its surroundings. In nine cases out of ten they do not. The exception is, perhaps, to be found among the descendants of the wealthier class of the older settlers. To these have come down the sturdier pieces of furniture—imported or otherwise—which were in use at an earlier day, but the instances in which they have been preserved intact are very few. The passion of a young couple just commencing housekeeping is for furniture of a modern kind, and if the taste is unformed, the style of furniture selected is not unfrequently meretricious. The country house, in their opinion, must smack of town fashions, and if articles of the best workmanship are too expensive, resort is had to a cheaper kind of a flimsier construction, bearing a certain resemblance to that in use in the best town houses, but more intensely fashionable and pretentious. The chairs are chairs of "little ease;" but then they are elaborately carved, and as to varnish, they shine to a marvel. The sofa, with its spring seat and its hair cloth cover—the springs themselves often felt but too painfully—too short for reclining, and by no means pleasant to sit on, is a curiously painful piece of workmanship. But then it is of the style of Louis Quatorze, and if it is not comfortable it is at least a capital imitation of similar pieces of furniture to be found in wealthy—may we add also, "tasteless"—city dwellings. The centre table is an invariable accompaniment. No young lady could do without a centre table, it is such a capital place to display books bound in red morocco and blue and gold—books too, which are often profusely illustrated with very badly executed engravings. Next comes the three cornered thing commonly styled the "what-not," but, in fashionable parlance, an "*etagere.*" This, with its shelves, is for knick-nacks—articles of *vertu*, the more fastidious would call them, but a close examination of these choice collections of small things would scarcely justify the appellation. We now come to the carpet. It may be three ply, or ingrain, or Brussels, or velvet tapestry, but whatever it is, its chief merit is that it is of "a loud pattern," gorgeous in the extreme, and, as a matter of course, in its prevailing tone it does not harmonize with the colour of the curtains, if there are any, or with that of the walls if they are papered. All these agree to disagree in the most remarkable manner imaginable, and every body is perfectly aware that something is wrong about the upholstering, but nobody is willing to say downright that the apartment exhibits throughout a want of taste and, above all, a complete absence of the sense of fitness.

Let us give another description of a parlour in which CALVERT VAUX, the well known architect, very cleverly hits off one of the characteristic weaknesses of not a few American Housekeepers:

"The drawing room, or best parlor next suggests itself to our notice. This room, although intended to be a strong point in every American house, is often made its least satisfactory feature. I have noticed one style, for example, which in all probability, most of my readers have also seen. The walls are hard finished white, the wood work is white, and a white marble mantel piece is fitted over a fire place which is never used, as there is a stove in the room or a furnace in the house. The floor is covered with a carpet of excellent quality, and of a large and decidedly sprawling pattern, made up of scrolls and flowers in gay and vivid colors. A round table with a cloth on it"—we deny the cloth except in exceptional cases—"and a thin layer of books in small bindings occupies the centre of the room, and furnishes about accommodation enough for one rather small person to sit and write a note at. A gilt mirror finds a place between the windows. A sofa, by courtesy so called, occupies irrevocably a well defined space against the wall, but is just too short to lie down on, and too high and slippery with its spring convex seat to sit on with any comfort.—It is also cleverly managed that points or knobs—of course ornamented and French polished—should occur at all those places toward which a weary head would naturally tend if leaning back to snatch a few moments repose from fatigue. The sofa is, indeed, the representative man of the room and contains in itself the whole spirit of discomfort that reigns unmolested on every square foot of the apartment. There is also a row of black walnut chairs with horse hair seats all ranged against the white wall. A console table, too, under the window, if I remember rightly, with a marble top and thin gilt brackets. I think, too, there is a piano. There is certainly a triangular stand for knicknacks, china, &c., and this with some chimney ornaments completes the furniture, which is all arranged according to stiff immutable law."

Now all this is entirely wrong. In the country especially, stiffness, formality and display and the aping of fashionable customs should be entirely avoided. The interior of a country house, should be furnished throughout plainly, solidly, and with a solicitous regard for comfort and not show. Carved work of every kind should be sparingly introduced, the carpets should be of thick texture and of a simple and unobtrusive pattern, small rather than large. The curtains should be woolen, of a neutral tint to harmonize with the carpets, and the walls when papered should agree with the prevailing tone of the room.

Sturdiness and substantiality should be the general characteristic of the furniture, which should be made of the native woods and oiled. There should be no varnish, no gilding, no high colors; but everything should be in unison, as if ease and not fashion were consulted, and as giving to the interior that air of permanence and liberal accommodation which ought to pervade the dwellings of men who are metaphorically supposed to sit under their own vines and fig trees with none to make them afraid.

ELEMENTS OF LANDSCAPE GARDENING.

Number Eleven.

Preparation of the Ground and some further Suggestions in regard to Planting.

In addition to what we have already said on the above subject, and for the purpose of clearing up many minor points of interest that have been left purposely untouched until toward the close of the series, we offer the following suggestions in regard to the best seasons for planting trees and shrubs, with especial reference to their future or immediate effects.

For moving of soil and for the general preparation of the ground where new improvements are to be made, the summer and fall are the best seasons, as the soil is then driest and admits of being moved without injury by trampling or wheeling. Ground put into shape during the summer gets time to settle and mellow before it is wanted for either planting or sodding, and anything that is done afterwards in the way of finishing will stand better and demand less alterations. Of the two seasons—Summer and Fall—the early part of the latter is the best, as the ground being then softened by rain is more easily worked, and the turf for edgings to the walks and approach road can be moved, from wherever it is to be had best, and put down without danger of being killed by subsequent drouth. Moreover the succeeding months of October and November offer the best season for transplanting all kinds of trees and shrubs. There are two modes of planting, both of which have to be considered. The first is undertaken solely with reference to the ultimate effect; the second for the purpose of producing an immediate and present result. The former plan is the easiest and least expensive, but for several years after the planting has been completed, it will be exceedingly tame and uninteresting. It is nevertheless the safest plan for those who have the courage to abide by it, and the patience to wait. It is perfect from the beginning; requires no cutting out; no thinning, but as the plants continue to grow they occupy the exact place designed for them; produce the exact effect it was intended they should, and fill up with their freely expanding limbs, the space which they were properly intended to occupy. The great objection to this mode of planting, is that the trees grow slowly, and that the improver, if he be a young man, attains to middle age before the plans of the landscape

gardener reach an adequate development, and if he be well stricken in years, he may not live to witness those results for which he has waited so patiently. To produce an immediate effect, thick planting is essential; but the surplus plants which are thus used must be gradually cut out as the specimens intended for permanence, increase in height and size; and herein, as we have already said in a preceding number, lies the difficulty—most improvers are reluctant to see their groups and masses thinned when they are once well established, and consequently lose, by retaining them, the happiest effects of the plan as it was originally laid down.

It is nevertheless, on the whole, always safest to plant pretty thickly, not only to break the face of prevailing winds until the newly planted trees and shrubs get good root-hold, but also because the better kinds of plants invariably grow stronger and faster for having a little shelter, provided they are not robbed of light and air, and the protection is not continued too long. Moreover, the sheltering plants, which are to be eventually removed, whilst they aid in producing an immediate effect, may be of the commoner kinds, and for this reason may be sacrificed without reluctance when they begin to do harm. In planting never bury the roots too deeply, as it will endanger the life of the tree. The crown of the root ought not to be placed more than two or three inches below the surface of the ground; so that as the soil settles and the roots expand the collar of the root may take its natural position on a level with the surface of the soil.

Plants in masses should never be planted in any kind of regular order, but should be scattered about as irregularly as possible, and at various distances from each other. For ordinary plants a distance of from three to six feet is the most proper, according to the size of the plants—very small shrubs should be planted at a distance of from three to four feet apart, and occasionally more. As regards deciduous and evergreen trees, due regard should be had to the size they eventually attain, and they should be planted at such distances apart as will enable them to expand their branches freely without injury from overcrowding.

We close with a hint that is particularly valuable. "To relieve the excessive bareness of young plantations, in pleasure grounds, Dahlias and Hollyhocks, if copiously introduced have been found singularly useful. The leaves of newly planted shrubs seldom develope themselves fully for the first year or two; and much may therefore be done to make the clumps look fuller by means of the two tribes just named, without doing an injury to the more permanent occupants of the ground."

Fools are wise men in the affairs of women.

Our Agricultural Calendar.

Farm Work for November.

The principal work on the farm during this month may be aptly expressed by the phrase "clearing up." This general term covers all those multifarious occupations which close the season of active operations in the field. There is, in point of fact, but little more to be done in the field beyond securing the root crops, taking care of the stock, and collecting refuse material for conversion into manure. In regard to making provision for an ample supply of the latter we cannot urge it too earnestly upon the attention of our country friends. We are quite satisfied that they do not fairly appreciate the unquestionable value of composts, and that they rely too exclusively upon the product of the barn yard and the cattle pens. It would nevertheless be an easy matter to treble, or even quadruple the quantity of manure usually collected through the winter without, in any degree, impairing its quality. All the expense incurred would be limited to the labour of collecting, composting, and hauling out after the materials have been broken down and rendered soluble by fermentation. It requires, it is true, some care in the process; some watchfulness in seeing that fermentation is well kept up until the whole heap is impregnated, and that the heat be so regulated that it shall stop short of that condition of carbonization, which is known by the name of "fire fang." At the present high price of fertilizers those who study economy will do well to trust, as far as possible, to domestic manures, by increasing their compost heaps to the greatest possible extent.

Compost Heaps.

There is nothing more deserving of serious consideration than the best method of increasing the supply of farm manure, and there are no means more certain and more feasible than by making composts. The materials for these are always at hand, and consist simply of barn yard manure, in the proportion of one load of fresh green stable manure to three loads of refuse; the latter consisting of every available species of rough vegetable fibre,—turf, weeds, corn stalks, &c.—combined with woods earth, decaying leaves, marsh mud, the scrapings of ditches, wood and coal ashes, soap suds, and the comparatively virgin soil of headlands. All these should be collected in the fall of the year, and either hauled into the field which it is intended to manure in the spring, or into the barn yard, which is preferable, although it involves the labour of hauling a second time.

Method of Making a Compost.

Mark out the space on which the compost heap is to be formed, and spread evenly within the lines so

marked, a portion of the rough material already collected to the depth of two feet. This is the first layer. The second layer should be barn yard manure, spread over the first to the thickness of eight inches, drawing it in slightly at the sides and ends. Now put on another layer of vegetable fibre and ashes, eighteen inches thick. Follow this again with barn yard manure to the thickness of six inches, and proceed thus with alternate layers of refuse matters and barn yard manure in the proportion of one load manure to three of refuse, drawing in the sides and ends gradually until the entire heap when completed, assumes the form of an an oblong pyramid. When this is done, many of our farmers imagine the work is completed. This, however, is not so, and it is, at this point, that the failure of many compost heaps commences. Instead of leaving off here, means must now be taken to promote fermentation. To this end the heap must be well saturated with soap suds or with the black water of the barn yard, or with both. To insure perfect saturation,—for without moisture fermentation is impossible—thrust a crowbar or a sharp pointed pole into the heap, making quite a number of holes, and into these pour what we may properly style "the water of fermentation." Now close up the holes and pack the sides and ends with woods earth or marsh mud as an outer shell or covering from four to six inches thick, and when this is accomplished the work may be said to be completed. The process of fermentation should now be thoroughly watched. If the heat is too great open the heap a little by making holes in it, and giving it another saturation; but if the heat is mild and steady let it alone until it is time to break down the heap and mix the materials preparatory to hauling out.

A Compost Heap without the addition of barn yard Manure.

There is another method of making a compost heap where barn yard manure is deficient, which is so valuable that we append instructions for making it. The formula is that which was furnished by Prof. Dana some twelve or fourteen years ago. The following materials are the proportions for one acre of land:

Three tons of coarse vegetable fibre—say grain, straw, weeds, turf, woods earth, pea vines, decaying leaves, potato vines, &c. To these add—90 lbs. of ground Plaster—2 lbs. Refuse Salt—3 lbs. Saltpetre—2½ bushels of Wood Ashes—2½ bushels of Charcoal Powder—5 bushels of Night soil.

Make the pile of vegetable matter near a puddle of stagnant water, if possible. If this is not convenient sink a pit near the edge of the pile; fill it with common water; then throw in the night soil; mix it well by stirring, add the ashes, then the charcoal, and, lastly, the salts.

With a bucket furnished with a long pole handle, like a tanner's scoop, water the pile daily with the above mixture, taking care that the drainage runs into the pit to be again returned upon the pile. In two or three weeks, in warm weather, the heap will be converted into manure of the best quality and will be ready for use.

Fattening Hogs.

If the hogs have had the run of the woods, call them in and pen them up before the cold weather sets in, as they fatten more readily in moderately warm weather than they do in cold, and the whole process of fattening should be completed before the winter comes on in earnest. We have already advised, in the last number of the *Farmer*, that swine, whether intended for fattening or to be kept over should be provided with good comfortable feeding and sleeping apartments; that they should be kept regularly supplied with dry materials for bedding, and also to work up into manure. They must, of course, be well fed and frequently, so as not to gorge them with too much at a time. Water and the slops of the house they should have, and it should be mixed with corn meal in preference to giving them corn in the cob as being more economical. See further they are kept supplied with a sufficient quantity of charcoal and rotten wood to correct acidity and promote digestion.

Ploughing Stiff Clays.

We again suggest that stiff clays derive a great advantage from being ploughed and subjected to the action of winter frosts. Care, however, should be taken that they are not ploughed when wet, or they will clod worse than ever.

Roots of all Kinds.

If these are not already gathered and stored away, lose no time in securing them.

Milch Cows.

Not only milch cows, but all kinds of stock, should be provided with shelter in rough weather. Warmth economises food, it should be understood, and the more comfortable all sorts of farm animals are kept through the inclement season the healthier they will be, and they will, moreover, turn out, in regard to flesh, in better condition in the spring. Where food is scarce and high in price, as it certainly will be during the ensuing winter, it would be well to save the corn stalks, as well as the tops and blades, and pass the whole through the cutting box. This rough fodder, when mixed with a small quantity of corn meal, or bran, makes a very good food for milch cows, and with the addition of roots also sliced, will keep them well up to their milk. Two or three times a week they should be provided with salt. See that they have water regularly, and if they are bedded of a night and occasionally rubbed down

with a wisp of straw, they will well repay the extra trouble.

Young Heifers and Young Cattle Generally.

The true policy in raising stock is to keep them in a good healthy growing condition. If they ever get stunted they never recover from the effects of such careless treatment. Keep them moderately warm through the winter in comfortable sheds open to the south, and sheltered as much as possible from the north and north west winds. Feed them three times a day with long fodder, adding once a day a moderate supply of grain or corn, or of bran mixed with cut straw. The great object is not to fatten them, but to so keep them that they shall not be stunted in their growth. They must have an abundant and regular supply of pure water, and be provided at proper intervals with salt.

Working Animals.

Working animals should be well fed throughout the winter with fodder and grain, a certain quantity of the latter is necessary in cold weather to keep up the animal heat, and although the amount may be less than is required when they are at hard labor in the field, it should never be wholly omitted. They should be curried as regularly as if they were at work. Indeed currying is more necessary when the animals are confined to their stalls than when they are at pasture or engaged in the field, as close confinement has a tendency to check the insensible perspiration, and the pores of the skin becoming clogged, the health of the animal necessarily suffers.

Care of Sheep.

Sheep should be provided with a covered shed, on the bottom of which rough material should be spread not only as furnishing an additional means of warmth, but also to be converted into manure. A few inches of straw, &c. should be spread over the surface of the ground occasionally, through the winter, and broadcasted with plaster to fix the ammonia.—Every sheep shed should have a yard attached to it into which the sheep may go at will.

Apples.

All apples now remaining in the orchard should be promptly and carefully gathered and stored away.

Granaries and Corn Houses.

See that these are thoroughly cleansed and purified before the grain is stored away.

Draining Wet Land.

Wet lands may now be drained, as advised last month.

Farm Implements, Gearing, &c.

These should be carefully looked over; repaired and put away ready for use when wanted.

Firewood.

A supply of firewood should now be cut and hauled and stored away, sufficient to last the household until the ensuing fall.

Fences and Gates.

Examine these and have them put in the best possible order.

Orchards.

Look to these and act upon the suggestions offered last month.

Out Houses and Cellars.

If these have not been recently white-washed and cleansed, set to work at once and have it done.

Garden Work for Nov.

Turnips, Carrots, Beets, &c.—Take up these and store them away before hard frosts set in.

Lettuce.—Lettuce plants in frames should have air given to them every clear mild day.

Garlic, Shallots, Chives.—These should be planted out during the early part of the month.

Cabbages.—Draw these and put them away carefully for winter use.

Cauliflower, Brocoli.—Break down the leaves of these, so as to protect the flowers.

Celery, Cardoons and Endives.—Attend to the blanching of these during the early part of this month.

Sale Kale and Rhubarb.—Seed of these may be sown in the early part of the month.

Artichokes.—Dress these for winter.

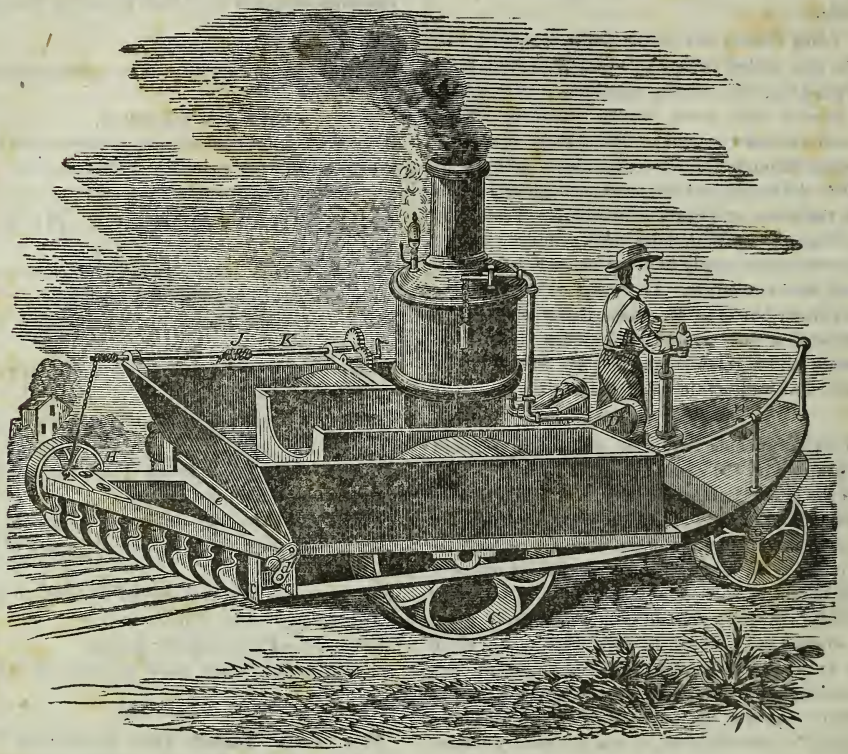
Small Salading.—Sow small salading in hot bed frames.

Do You Take the Farmer?

Reader, are you a farmer? If you are—do you take the FARMER? If you do, all right—if you do not, let us ask who is the greater loser, you or the publishers of the FARMER? They lose a drop only of gain, by your subscription, you lose many times the cost, by the loss of information truly valuable to every farmer and stock-raiser in the land—the practical results of thousands of working men, all over the country. Therefore, we say again—who is the greatest loser? If you are wise, take the "FARMER."

AGRICULTURE.—Agriculture must have flourished at an early period in England. When the Emperor Julian was rebuilding the ruined cities of Gaul, six hundred barques, framed in the forests of Ardennes, made several voyages to the coast of Britain, and returning from thence laden with corn, sailed up the Rhine, and distributed their cargoes to the several towns and fortresses, along the banks of the river. Computing these six hundred ships at only seventy tons they were capable of exporting 120,000 quarters, and the country which could bear so large an exportation must have already attained an improved state of agriculture. This is reported to have taken place about the year A. D. 359.

REYNOLD'S PATENT STEAM-PLOW.

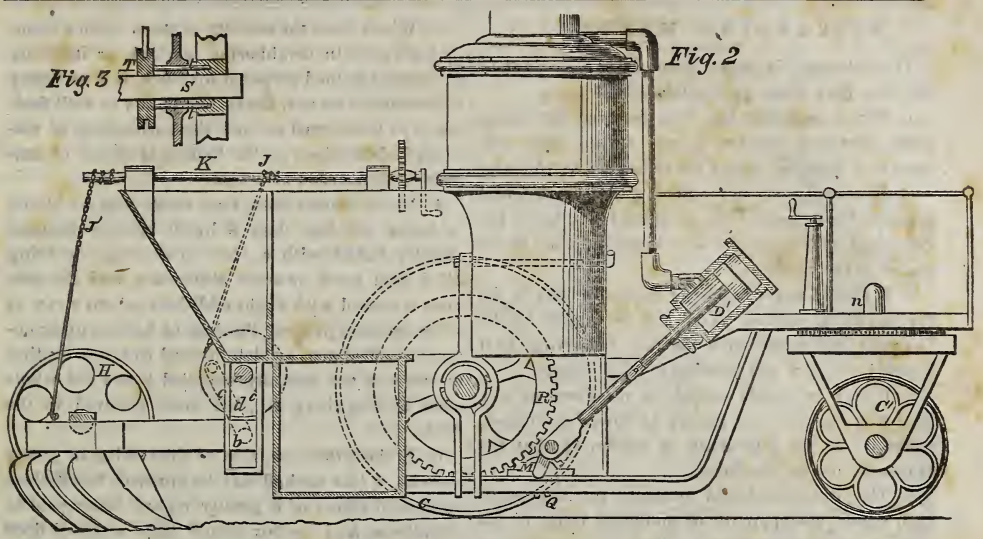


We are indebted to the "AMERICAN ARTISAN" for the accompanying engravings and for the following description of

REYNOLD'S PATENT STEAM-PLOW.

One of the greatest difficulties in plowing by steam has been to prevent the wheels of the plow, upon which the weight of the carriage, boiler, and engine rest, from sinking in the ground. With the plow here represented, this is prevented by using an engine and boiler of the lightest practical construction and very broad bearing wheels. There are two driving wheels, C, arranged at the sides, and two guide-wheels, C′, in front, and the several wheels are of such a width and so arranged as to form a bearing of the whole width of the frame, the guide-wheels being close together and the driving-wheels being arranged at a distance apart equal to the width of the two guide-wheels. The engines, of which there are two, have oscillating cylinders, D′, and the piston-rods connect with cranks, M, on pinions, Q, which gear into the spur-gears, R, which are keyed to the axle of the driving-wheels. The driving-wheels, C, fit loosely upon the driving-axle, but they are capable of being secured to the spur-wheels K, at the will of the operator, by means of clutches, so that either or both of the said wheels may be caused to revolve with the said axle. The rods which actuate the clutches are carried forward to within easy reach of the steersman, so that, when he desires to turn the carriage round, he throws one wheel out of gear, and the carriage will then be turned upon this wheel as upon a pivot by the action of the other one. The guide-wheels, C′, run upon a short axle, which is secured to the front part of the carriage by the king-bolt, *n*. Around this king bolt is a spur-gear, into which gears a pinion upon the lower end of the steering-shaft, so that the direction of the guide-wheels may be changed at the will of the steersman.

At the rear of the carriage there is a triangular frame, to which the plows, A, A, are attached. This frame is so arranged that it can be raised vertically, to bring the plows clear of the ground, whenever it is desired to pass over the ground without plowing, or in order to avoid breakage in case of meeting "nigger heads," boulders, or other obstructions. The means by which the frame may be thus raised is shown in the engravings. The front bar, *b*, of the frame is received in two vertical hanging-guides, *c*, *c*, and is suspended therein by chains, J, J, and by the link, *d*, attached to an arm upon



the end of a rock-shaft, *e*, in such a manner that it may be raised or lowered by turning the shaft, K, around which the upper part of the chains are wound. A crank, arranged within convenient reach of the fireman, enables him to raise or lower the plow-frame whenever desirable. The rear angle of the plow-frame is supported, when in operation, by a wheel, H, the axle of which is placed eccentric to to the shaft, of which it is a continuation, so that by turning the shaft over in its bearings, the rear end of the plow-frame may be raised or lowered to adjust the plows to run at any depth desired. The driving wheels may be corrugated or have creepers on their faces. The plow is calculated to travel at the rate of four miles per hour, and to plow about fifteen acres per day of ten hours.

The advantages claimed for this plow are:

1st. That, by the great breadth and peculiar arrangement of the wheels, the weight is so distributed that it will not press more on one part of the ground than another, great tractive power is obtained, and all rocking motion obviated. 2nd. By the mode of attaching the plows, they not only can be raised up, but the plow-frame can be changed for a cultivator-frame. The plows, moreover, invariably come out of the ground with an inclination. 3d. The whole machine is capable of turning its own length. 4th. By throwing both clutches out of gear the engine can be attached to a threshing-machine or saw-mill, or used for driving any other machinery.

This invention was patented by John Reynolds, of New York city, since deceased; but the patent is now in the hands of Thos. Reynolds, of No 211 Dupont street, Greenpoint, N. Y. who may be addressed there or at the Novelty Iron Works, New York.

THE BEATER HAY PRESS.

The Rural New Yorker in speaking of the various implements and machines on exhibition at the late N. Y. State Fair, thus alludes to this hay press:

"We must not omit to notice this prominent feature of the Fair, which really deserves more space than we can give to a discussion of its merits, and of the influence it must have upon grass husbandry. We have found ourselves straying toward it repeatedly and almost unconsciously during the past three days, to watch its operation, by which hay is compressed into one-half or two-thirds the bulk of bales made by an ordinary press. This is done by means of a beater—a weight which is operated like the hammer of a pile driver—which beats the hay into the smallest compass, when a tremendous screw power is applied to compress it still more; and thus compressed, it is hooped and turned out a solid bale, which will not hurt by handling. For preparing hay for transportation to market, this is the most perfect thing we have ever seen—almost equal to the food-condensing processes now in vogue."

SHEEP SHEARING BY MACHINERY.

This seeming impossibility was exhibited before a large collection of ladies and gentlemen at the late San Franscisco Mechanics' Fair, by Jenkins' Power Sheep Shearer, a beautiful and most ingenious little machine, invented for that purpose, with which the inventor stripped off the fleece of an old gentleman sheep in less time than it used to take an energetic foreign mining tax collector, in some of the mining counties, to strip the coat from a repudiating celestial, and that did not use to take very long.—*San Francisco Mining and Scientific Press.*

HUSBANDING MANURES.

The following is taken from the proceedings of the New York State Agricultural Society :—

1. Where sufficient has been reserved for arable lands, barnyard manure may be spread upon pastures and meadows under the following restrictions:

a. If spread early in the Spring on pastures, and designed for *immediate* use, it should not be of the droppings of that species of animals intended to be placed in the pastures.

b. It should never be spread upon meadows in the Spring, as the coarser parts will be caught by the hay-rake, and mixed with the hay, imparting to it a musty smell, if not tainting it with fungus.

c. It may be evenly spread on meadows at any time after harvest, and lightly harrowed or bushed, especially if the after-math is heavy, so that the grass may not be smothered.

d. The weather should indicate the absence of high winds, the approach of moderate rains, or the presence of copious dews, so that the ammoniacal portion of the manure may not be lost.

e. On rapidly sloping lands a heavy top dressing should be applied near the summit, unless furrows such as are necessary in irrigation are made, so as to prevent the manure being washed with heavy rains to the bottom.

f. In Winter no manure should be spread on either pastures or meadows when hard frozen, even when most of the atmospheric conditions above alluded to are present, *unless* the surface is or soon will be covered with snow, and then only on ground either level or gently rolling, so that in case of a thaw the melting snows may not render the distribution of the manure comparatively useless.

2. Under a system of rotation of crops, as supposed in the question, the husbanding of manures is indispensable to thrift in farming, and is to be regulated according to the supply of litter and the method of feeding adopted.

3. On farms whose principal staple is grain, the amount of straw is not unfrequently in excess of the feeding material reserved, and in such case it is necessary to spread it profusely over the barnyard, that it may be trodden down by cattle and sheep and mixed with their droppings. In such case it is sufficient that the barnyard should be dished or provided with one or more tanks for the holding of the drainage of the mass; that fermentation should be allowed to proceed until the straw is disintegrated sufficiently either to turn the mass into heaps, (into which the liquid contents of the tanks are to be conveyed by pump and trough,) or drawn out into the fields for Spring and Fall crops—of which method as generally in all departments of the farm service, the labor that can be applied is the discriminating test.

4. Where from the scarcity of straw upon a farm, its high price in neighboring markets, or its being an element of food prepared for stock, it is necessary to economize its use, the system of box or stall feeding is to be resorted to, and the husbanding of manures is determined as the feeding is either of animals to be fattened or reared.

5. In the former case, neat cattle may be placed in boxes not less than 8 by 10 feet, the bottoms slightly dished with a view to drainage or being filled with muck or other absorbents, and the animals wintered with slight additions of cut straw as litter, so as to prevent the loss of hair or other cutaneous affections, (which proceed from the heating of straw if too liberally supplied,) and the whole mass of droppings, &c., left until removed to the fields.

6. In the latter case, that of the rearing of young animals, a like method may be pursued, but if their value will admit of a greater regard being paid to cleanliness, &c., the box should have a slatted floor of oak or other durable strips 1½ inch thick, 3 inches wide and half inch apart over a paved, clayed or cemented floor, inclined so as to carry the drainage of the box into gutters leading to a tank, and the manure removed as often at least as once in six weeks, placed under cover of a roof either permanent, or of boards battened, turning on pins and moved by a long lever as in sheds for drying of brick, the liquid manure (if not used separately) being pumped from the tank and conveyed by troughs over the mass so as to prevent fire-fanging. If used separately the sheds are to be opened to occasional rains for the same purpose.

7. The manure from animals stabled in the ordinary way is to be treated as last above described, and it is desirable that the manure shed should be constructed with access to it from a level below that on which the manure is deposited, so that in Winter the manure may be carted out upon lands plowed in the Fall, the fresh masses placed on top, preserving those underlying from being thoroughly frozen.

8. When sheep are alone raised, they should be kept under sheds with small yards connected therewith, and their droppings may be treated either as in the case of fattening or growing animals, at the discretion of the owner.

9. Where no portion of the manure is designed for top dressing of pastures, that of horses and neat cattle may be always advantageously placed under the same cover, their different capacities for developing heat, operating favorably against over-heating.

10. As the value of straw as an article of food if cut up, mixed with feed, thoroughly wetted and allowed to stand in mass for a few hours so as to develop heat, or if steamed, is at its lowest price worth

at least twice as much for food as for the manure resulting from its nse as litter, where beds of mnck or peat exist on a farm these should be ditched and afterwards paved, so that by the nse of these materials when dried, the straw may be largely used as an article of food, a greater number of animals kept on the farm, and greater masses of manure made, add with a material more valuable than straw as an absorbent and fertilizer, and for the preservation of the droppings of cattle at a more uniform rate of temperature.—*Rural New Yorker.*

THE LAW AND MANNERS OF THE ROAD.

All of us have ideas more or less correct, in regard to the law which regulates our use of the highways; and, at any rate, good sense and good nature are usually very safe guides. A few words on the snbject, however, may not be amiss.

It is commonly said that every one has a right to half the road. This is practically true, and comes about in this wise: Yon and I meet upon the road—onr legal rights are exactly equal, and both have right to go our several ways without obstruction, so, popularly, we say I own half and you half. The law steps in to facilitate matters, and directs each to turn towards his right hand. The road should be "worked" wide enough for two teams abreast, then each man has a clear title to a passage on his right hand side of the way; and no one has a right to obstruct another while on his own proper track.—This is true whatever the load or the team; for if one can drive such a team that another can pass him but with difficulty or not at all then their rights are no longer equal. This point becomes very important in winter, for it is no joke to turn your horse and all into deep snow while your neighbor goes smoothly along in the beaten path. No one has a right so to load his team as not to be able to give np half the track to whoever demands it.

A footman may choose the part which pleases him or any portion of his right hand half the way and the team mnst yield it to him. This is clearly so in winter, and no man is obliged to step into the snow for one or two horses. This is the law and the Court awards it.

Now for the manners of the road; which, in some instances, vary from the law thereof.

The first reqnirement of road manners is good nature and an accommodating spirit. Do to others as you would have them do to you. Always be willing to yield more than half the space, then you will be pretty sure to be equally well treated. They who exact inches will have inches exacted of them. If your neighbor has a heavy load, consult his convenience as far as possible; you may sometimes be loaded. It has become a practical rule of courtesy to turn out for wood and logs, and for other heavy teams in winter, for they say, "we often cannot turn out, and never safely, so, if you want wood, accommodate us;" which we are very willing to do. But remember it was a favor, not yonr right, and you have a reciprocal dnty to perform, one which, I am sorry to observe, is not always borne in mind. When yon have unloaded and are returning empty, just recollect that you had the whole road in the morning, and it is no more than fair that you shonld be particnlarly obliging to those whom you meet now, and give them their full share of the path.

One word in relation to teams going the same way; in which case many seem to think there is neither law nor manners. When a team comes up behind you, which desires to proceed faster than you do, that team has a right to a reasonable space and opportunity to pass in—in fact to half the road for that purpose—and your obstructing him in his lawful desire is both bad manners and bad law. If your load is heavy, do the best you can. In most cases the very least that can be asked is that you should stop. This is particularly so in winter, when it is a heavy tax on a team to force it into a trot in deep snow—made necessary by yonr continuing at a walk. My remark above in relation to the emptied wood sled applies here, and if one wishes to pass you, remember that while loaded you had the whole road.

One remark more, to and for the ladies. First, to them. If out walking keep in the path—never step into the snow or mud for any ordinary team. If you meet the team, step into your right hand track or part of the road and all goes on easily.—If the team comes up behind, step into your left-hand track; then, as sleighs are bnilt, the horse in the other track, as before. Whereas, if you continne in yonr right-hand track the horse or the team must travel wholly in the deep snow in order to pass you and the driver will be tempted to scold his wife as proxy for the female sex generally.

I have this to say for the ladies—always turn ont for them. They are entitled to the right hand half, and will you run over them because, in their confusion at meeting one of the "lords of creation," they happen to take their half out of the wrong side?

I close this somewhat lengthy dissertation with an appropriate aphorism: Wheel grease is a great lubricator, but good manners are vastly greater one.—*Claremont Eagle.*

Moss on Lawns.—The lawn shonld be well manured with well-rotted stable dung in autumn, or sow on wood ashes just before a rain; rake well in the moss. The presence of moss indicates that the soil is exhausted, and a top-dressing will be found very beneficial.

OUGHT FARMERS TO LABOR ?

We are no advocates of idleness. That all men should be usefully employed, we cannot doubt. But we do not believe that it is necessary or wise for the owners of farms to engage in hard manual labor the year round. Farmers have brains as well as muscles, and the exercise of the former is quite as necessary to success in their profession, as the latter.—Many, perhaps the mass of our farmers, exert their muscles at the expense of their brains. The whole nervous energies of their system are thrown into their muscles, to be expended in the hard physical labor of the farm. Their brains become inactive, and they become mere laboring machines, that toil early and late. If they pick up a paper or a book, they fall to sleep, as their overtasked system demands rest and repose. If they attend a lecture or a meeting, they return home about as wise as they went, as the exhausting physical labors they have undergone, nearly incapacitate them for listening, appreciating and digesting the mental food set before them. Their brains are of no consequence unless they can use them. If they use up the whole energy of their physical system in plowing, and sowing, and hoeing, and haying, and harvesting, and the other labors of the farm, their brains are deprived of support, and their minds dull and incapable of exercise. True, there is now and then a man of iron constitution, who possesses a sufficient amount of nervous and physical stamina to undergo great physical and mental labor; but they are exceptional cases, and are not to be regarded as samples of the majority of farmers. Now who is the most successful? Is it the intelligent, wide-awake man, who keeps posted and up with the times, or is it the hard working manual labor man, who takes the brunt of his own work, and so exhausts his brain of its nervous energy that he can scarcely reckon up the price of a few pounds of pork, or a few bushels of grain or potatoes, he may have to spare? We believe in brains and their exercise. One of the shrewdest of American philosophers has said, that "the eye of the master was worth both his hands." We believe the owner of a farm can find profitable use for all his time, in the intelligent supervision and study of the various matters pertaining to his farm, family and business, without daily performing as much or more physical labor than any of his hired help.—The man who makes it his business to be constantly delving, from early in the morning till late at night on his farm, is likely to lose much more than he will gain. A gentleman of over three score years, stated to us that he had done a great deal of hard labor during his life, and had succeeded in accumulating enough to carry him comfortably through the remainder of his days, had he not used himself up by hard labor so that his health was so poor he could not enjoy it. He said, "if he were to live his life over again, he should exercise his muscles less and his brain more." Said he could see now where he had missed it. That he might have been much better off, both pecuniarily and physically, if he had done less manual labor and more mental. Said he was well aware that they were not the most successful farmers that had performed the most hard labor. He said that there could be no question that an intelligent study and supervision of one's business, would lead to more profitable results, than any amount of hard labor that could be performed with the hands.—*Rural New Yorker.*

How to Save Labor on the Farm.

If we were asked what the farmer can do to protect himself against the present evil of scarce and high-priced laborers, we should answer, *improve the tillage*, and especially in the preparation of the ground for crops, make the team and the machinery take the place, as far as possible, of hand-work. It is a fact but little appreciated, we fear, among farmers that every dollar judiciously expended in the prepation of the ground, or the crop will save two, or perhaps five, in the subsequent cultivation.

Take, for example, a field of corn. The ground, after being well plowed, must be worked with the harrow, cultivator or scarifier, until the entire surface is reduced to a mellow tilth—completely broken up and pulverized. In contrast with the usual practice this thorough work has two advantages—it does half the labor of subsequent cultivation, and will generally increase the crop from twenty-five to fifty per cent.

The labor of planting, of working, and caring for the crop, on a field so prepared, is immensely less than when the planting is done in imperfectly prepared ground. Twice the space can be planted in a day, and in the subsequent culture much more than twice the land can be gone over with a day's labor. The crop gets a good start in spring, before the weeds and grass monopolize the ground, and this advantage holds good throughout the season.

At the present time, when labor is with difficulty obtained, when the prices for such as can be had are extraordinarily high, and when farm products are in good demand, there is every motive for instituting the most complete system of tillage, and preparing every acre of ground intended for crops in the best possible manner. With the improved implements and machines now in use for manipulating the ground, it is possible to do well whatever we have [illegible] in this respect, and we cannot too strongly urge upon our readers the importance now of preparing their fields, especially for hoed crops, with more than usual care and attention.—*N. Y. World.*

PRESERVING CABBAGE IN WINTER.

I have had considerabe experience in this matter of keeping cabbages in the best condition possible over winter, as my business of seed-raising has rendered this necessary; and the subject would yield quite a chapter; but at present let this suffice. Select a warm location having a southerly exposure if practicable, under a cliff, where the snow will be likely to bank in winter; the soil should be light in character, and the ground well drained. Dig a trench six or eight inches in depth, and of width sufficient to take three rows of cabbages. Having stripped all but the last layer of leaves surrounding the heads, stand them in the trench in the same position in which they grew, crowding them as closely together as possible; then begin a second trench, or rather continue extending the width of the one already dug, throwing the earth taken from it directly on top of the cabbages already planted, and thus proceed with the whole lot to be buried. Do not fill up the open interval which remains between the bottom of the cabbages, and the bottom of the trench; the air is a better non-conductor of heat than the earth, and hence the plants will be better protected with the space open. For this same reason, loosely headed cabbages require less covering than those more completely headed in; the air between the leaves protecting the former. Having completed the planting, tread the earth close against the last row planted, which will tend to keep them upright. Dig a small trench around the bed, for draining purposes, throwing the earth on the edges of the bed, as these are most liable to wash, and hence require extra protection. Have a lot of waste litter or sea weed at hand, sufficient, if litter, to cover the bed four or five inches in depth; if seaweed, three inches will be sufficient. After the ground is frozen about through to the cabbages, scatter over the litter or sea-weed as may be. If one has plenty of litter about, a foot of this will be a sufficient protection without the previous covering with soil. The Savoy varieties require less protection than the Drumhead. Six or eight inches of earth will protect as effectually as four feet, as I have proved by experiment.— *Cor. Massachusetts Ploughman.*

Turnip Seed—its vitality.—After extensive experiments we can declare as their result, that turnip seed of one year old will germinate only about 50 per cent.; two years old, 30 per cent.; three years old, 15 per cent.; four years old, 5 per cent." So says the *Agricultural Gazette* of London. We are inclined to doubt the correctness of this conclusion, believing, if well cared for, it is about as good the second as the first year.

The Truth Rightly Spoken.

Mr. John Johnston, the celebrated Geneva farmer of Western New York, in a letter addressed to Col. B. P. Johnson, Secretary of the New York State Agricultural Society, and published in the Monthly Journal of the society, lays down these telling facts, in brief, which we presume no farmer will deny, and we hope all will apply whose short-comings bring them within the pale of the implied reproof:

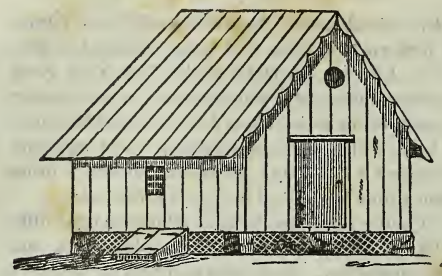
"I notice that those farmers who have most difficulty to make *ends meet*, always plow most, and keep most stock. Now these men take the true plan to keep themselves always poor, because their crops and stock are always poor and bring little. It is a good profit to raise 300 bushels of wheat from ten acres; but when it takes thirty to raise that amount it is raised at a loss; so it is with cattle and sheep; you will see the thinking farmer making four year old steers worth from $60 to $80 each, and his neighbor's at the same age, not worth over $25 to $40.—Now this ought not to be in a country where all men are born free and equal; if the farm is rich, then labour intelligently employed will soon make the owner in easy circumstaces; if his land is exhausted, (and a great many farms are,) then he should plow no more than he can thoroughly manure. Seed with clover and grass, and let it rest for even two years, and that field will not only pay well for tillage, but it will furnish manure (if rightly managed) to make another field of same size, rich also; it is bad policy, when a field is once highly manured, to continue cropping it with grain until the manure is used up. The latter end of that land will be worse than the first; but let that land lay in clover, even one year, but two is better, after it is manured, and then it will stand perhaps six good crops before it requires manuring; if a clay subsoil I know it will."

Coming events cast their shadows before them.—The following is from Willis' *Home Journal:*

She tied the new cravat
Which she so kindly made me,
Then smoothed with care my hat,
And with her arms delayed me;
She brushed my "glossy hair,"
And said "it was so curly!"
While going down the atairs
She cried, "Come home, dear, early!"
How happy then was I,
With all I e'er desired;
I fortune could defy
While thus I was admired!
We parted at the door—
Her smile deserved a sonnet!
"Dear love! but one thing more:
I want—*a new Spring bonnet!*"

Some hearts, like primroses, open most beautifully in the shadows of life.

ICE HOUSES.



Having seen in several agricultural papers, descriptions of the mode of constructing an Ice House, I ask the favor of being permitted to give to your readers the plan of one that I know, from actual observation, will keep ice, and keep it well: Dig a circular hole in the ground fifteen feet in diameter at the top, and twelve feet at bottom, and about fourteen feet deep; line it all round with chestnut or white oak boards of the proper length, and two inches thick. Build a small house over it, the floor of which is to be two feet from the ground, resting on stone or brick pillars; let the space between the ground and the floor be covered with lattice work of laths, so as to admit of *free ventilation* all round. Have an outside door to your ice house, similar to a common cellar door, and a trap-door in the floor of the room above. In the middle of the floor of the pit, have a hole dug about four feet in diameter and two and a half feet deep, which is to be covered loosely with rails; this is important, as it will admit of any water formed by the melting of the ice, running off, and sinking into the ground. The ice is to be pounded as it is put in, and when the house is filled to be covered with leaves from the woods.

The above has been tried by several of the farmers in this vicinity, and has given general satisfaction.

The following is another plan to Build an Ice House, which we take from the *Rural New Yorker :*

Seeing an inquiry in regard to building an ice-house, brought to mind the fact of how few avail themselves of the greatest of all luxuries in hot weather, which is ice. I will now give you a plan of my ice-house, from which any one can build who can use a saw and hammer.

It has been built about ten years, and is all sound yet, with the exception of the boards on the inside, which will want to be replaced once in about five or six years. The size is eight by ten outside, six feet high. I took two-inch plank, twelve inches wide, for sills and plates, halved together at the corners. I used studs on the inside, and boarded up and down outside. The cracks should be covered with battens, to prevent the air striking the ice. The rafters should be five or six inch stuff, boarded on the inside, and the space filled with either sawdust or refuse tan bark. The inside should be boarded the other way, to within a foot of the plates, which should be left until the space is filled. I place poles or scantling in the bottom, and cover with slabs, which will afford all the drainage necessary. The door should always be on the north side. The cracks in the north gable-end should be left open for the purpose of ventilation. I consider sawdust the best to fill the sides with, but tan-bark, turner's shavings, chaff, or straw will do.

It is more work to fill an ice-house the first year than it is after that. I like snow the best of anything to pack in—always filling the cracks between the cakes as solid as possible. I have taken out snow the last of summer just as fresh as when it was put in. The size of this house may be objected to by some, but mine holds enough for a large family and also a dairy of twenty cows. I don't believe any dairyman who has had ice to use one year would be without it for ten times the cost.

One thing more about the house. It should be banked up at the bottom, for any circulation of air through the ice will melt it as fast as water poured through it.

Storing Potatoes for Winter.—When potatoes are to be put away in pits, care should be taken to keep them as dry as possible, and to ventilate the pile so that no confined air shall remain. The best method is to select a high, dry ridge, and when the pile is formed, give it a thick covering of straw, grass or stalks, with a sufficient thickness of earth to render them secure from frost, and then cover the whole with plank so as to turn off the water into trenches, which should surround the heaps. In forming the pile, a tube, or several of them, according to the length of the pit, should be extended into the body of the heap and reach to the top of the earth, for the escape of heated air. These may be five or ten inches square, and in very cold weather, the opening should be closed with a bundle of straw or hay. Without this precaution, potatoes that are designed for seed, are as much injured as if they were intended for the table. Before planting time they are so much grown that their strength and vigor are so exhausted that the second growth is much weaker than the first, causing slender, sickly vines and a greatly diminished crop. Except the covering of plank, turnip and other roots should be stored and ventilated in the same manner.

The wild men of Oronsko said to a priest: "Thou keepest thy God in a church, as if he was sick and needed care. Our God is on the mountain top, directing the storm, and guarding us in the still watches of the night."

BIRD'S NESTS.

Whatever doubts there may be about the origin of flint implements discovered in the drift, and whether man at first lived in cave, forest, or shored himself up beside some inland lake, there can be none regarding the specimens of architecture he must have had constantly before his eyes in the bird's nests that where then built. Did he want a cavern to shelter in, he had but to watch the little swallow, called the sandmartin, hew out his home in the sand rock, with no other implement but its bill. If he wanted to build himself a wattled hut there was the missel-thrush, and no end of basket-making birds, to show him how to weave his materials together, then plaster them smoothly afterwards, so that when dry and hard neither the cutting wind nor searching rain could find an entrance, but left him to sleep as warm on his bed of rushes as the bird whose example he followed did in its nest. Even the high-arched dome might be seen almost at his door if he but followed the magpie, which, no doubt at that undated period, came chattering at times around him in the forest fastness.

No matter how remote the period geologists may go back to in search for the earliest inhabitants, there were masons and miners busy at work ages before man hewed out a cave for himself, with his hatchet of flint, in the soft sandstone. The birds were the earliest carpenters, and sawed and fitted, and made joists, and laid rafters across to support their dwellings, myriads of years before the Pyramids uplifted their heads to the sky, or the builders hewed a stone of those mysterious circles that now form the ruins of Stonehenge. Frail as some of the fabrics are which these little winged mechanist rear, yet they are renewed like the flowers, that seem imperishable, making their appearance again with every returning spring.

There is, perhaps, some exaggeration in the outcry raised against taking bird's nests and young birds. Few things are bettter calculated to teach a boy or girl tender heartedness than rearing a nest of young birds. True enough, a few may be killed at times through overfeeding and too much kindness, a pardonable tenderness of which many an indulgent nurse is guilty. There have been as many tears shed by girls and boys over the biers of their birds as would fill all the nests that are built during a long spring and summer, and the pitying tears of childhood are the purest tears that fall. Thousands upon thousands of young birds perish every year; for, bravely as the old one will defend its brood, it has often to be absent from its nest searching for food to support them. It is then that the young are attacked, for there are hundreds of hungry enemies ever on the look out, and many so ravenous that a nestfull of unfledged little birds is hardly enough for a single meal. The old mother has also to keep a sharp look out after herself while abroad, for there are keen-eyed hawks on the watch, who gobble her up in a minute if they can but get hold of her, and would be glad to finish off her whole family if there was a chance, without leaving a bone to "prate of their whereabouts." The butcher-bird makes any old thorn his larder, and there hangs up the carcasses he has killed until he is ready for a fresh joint. Ferrets, weasels, rats, and even snakes, are constantly hunting after young birds to devour them, instead of nursing and fondling them, as boys and girls do.

Seversl of our bird's nests are very beautiful, especially those of the goldfinch and chaffinch, which are flecked with richly coloured lichen, that lies like spangles on the moss. Then the lining, of wool, feathers, and hair, is smoothly felted together, and so strong that is as hard to tear asunder as a piece of good cloth; for these birds were felters and weavers long before hats or broadcloth were made.

The throstle builds a very neat nest, whether the outside be of straw, hay, or weeds, for it generally takes what it finds the handiest for a rough wall. This is coated over with rotten wood, or something of a softish nature, that fills up every crevice; then comes the plastering, which is smoothed off like the inside of a basin, and quite as round; for as the thrush hatches its young earlier almost than any other of our native birds, it builds a house secure enough to keep out the strong March wind and April rain. Perhaps of the two basket-making and plastering birds the missel thrush is the neatest workman, for he will weave into his nest the living branches and little twigs among which he builds, and very beautiful do they make his house look when the buds open, as his walls are covered with green leaves, and he sits in an arbour of his own making.

The skylark, which Shakspeare says, "at heaven's gate sings," makes itself a rough nest on the ground where its eggs are often smashed and its young ones killed by the hoofs of cattle that graze in the places where it builds. The little wren, for its size, builds an immense nest, very deep, and in shape like a pocket. How it contrives to feed the young which lie at the bottom of this deep nest—for it has sometimes as many as sixteen little ones to support—is one of nature's secrets which we cannot unravel. Some think the little mother pushes her sharp beak through from the outside, and so feeds them in that way, and that the little harvest-mouse makes openings to get at the young at the bottom of its round nest in a similar manner.

Birds build their nests everywhere, except under water, and sometimes venture so near that as to be flooded away—indoors, out of doors, in trees, and

in the very hearts of the trunks, in holes of every description, on the ground, in low bushes as well as on the topmost branches of the tallest trees, under the tiles, under the thatch, in the attic, in the cow-shed, and in the faggots that are stacked for burning. It would be difficult to say where bird's nests have not been found at one time or another.

Then their eggs are exceedingly beautiful and of every shade of colour, from snowy white to bull's-hide blackness in the markings or dottings. Some are blue as heaven, others of the most delicate pearly hue; pink, pale as the maiden-blush rose, and just as warm; greens of every shade, reds and browns of every variety;—and many a string may be seen in country cottages as beautiful to look upon as the richest-coloured necklace ever worn.

Now the birds are coming back that left us when Autumn rent asunder the beautiful green curtains which Summer had hung up to shelter them while they built their nests and brought forth their young. They are once more on their way across the sunny sea, and we shall soon hear them singing in our long leagues of hawthorn hedges, which will ere long be white over with may-buds, that will perfume our seagirt island from shore to shore; for the birds are God's messengers—the little angels of the trees—the pretty nuns that make sweet music in the "long-drawn aisles" of our cathedral-like woods, where they sing His praises who seeth not "a sparrow fall to the ground unheeded."—*London News.*

Gypsum and Lime.

The *Gardener's Chronicle*, London, gives the results of experiments with plaster and lime by M. Deherain: "The object of applying gypsum to arable land," he says, "is to liquefy the soluble salts which the soil usually retains, and permit them to be dissolved from the soil by water, so that they can be absorbed by plants. In this way, to use an expression now usually adopted, we may consider gypsum as an assimilating agent. The action of lime is not entirely similar. It attacks insoluble matters and transforms them. I still uphold what I stated some years ago on the effects which it exercises on the insoluble phosphates. M. Boussingault has likewise shown that lime attacks insoluble nitrogenous matters, and renders them capable of assuming the form of ammonia; lime, then is also an assimilating agent, but its action extends to insoluble matters. It acts by chemically decomposing certain substances, and causing them to take a different form. Gypsum, on the contrary, seems to act physically by setting free soluble substances that are shut up in the soil. As lime is the assimilating agent of the phosphates and of nitrogen in the state of ammonia, so gypsum is the assimilating agent of potash."

HOW MUCH LIME TO AN ACRE.

Some time ago I saw in the Germantown Telegraph the following paragraph:—"I only put on 40 to 50 bushels of unslacked lime to the acre in my early liming. Latterly I have put on as much as 80 to 100 bushels, and I believe that pays best. Lime on such soils as mine will improve the crops for 15 or 20 years, if the land is not cropped with grain continually."

Does it pay best? Even where only 50 bushels is applied, I do not think this plan pays best.

English farmers pursue a very different course in applying lime, and their perseverance in the same course proves it to be correct. They apply smaller quantities at shorter intervals. Their argument is something after this manner:

Suppose we take two separate pieces, each containing an acre, out of the same field, and give them both 100 bushels of lime to the acre. Now suppose, as above, the lime runs out and requires renewing in 20 years. Then five bushels are exhausted in one year or 10 in two. Suppose the ground will give 30 bushels of wheat (or its equivalent in corn, oats or grass,) per acre, the first year. At the end of 20 years it is fair to suppose that it would bring but 20. Thus 25 bushels will be the average crop for 20 years or 500 in all

Now, instead of not liming the other acre, let 10 bushels of lime be applied every second year. This would keep the average crop at 30 bushels per acre of 600 in 20 years.

That is, 100 bushels in favor of the latter, which, at $1.25 per bushel, makes $125. Deducting $15 for the lime, (at 15c. per bushel,) leaves $110 for trouble of applying same to land.

Some would say it will be almost impossible to spread 10 bushels evenly over an area of land.

If you think so, (which I don't,) then mix it with sand for clayey land or clay for sandy land or washings from the road, dirt from the wood pile or woods.

The benefit accruing from the application of the sand, clay or dirt, will amply repay you for the trouble of mixing, which should be done well.—*Cor. Germantown Telegraph.*

Winter Protection.—Many things which cannot be grown at the North, if left to themselves, may be, with a slight covering. Any non-conducting material that will not pack from the weight of the snow will answer. Boughs of cedar and other evergreens, and salt hay, and hay from the marshes, consisting in good part of sedges and ferns, and forest leaves, are all preferable to straw, for covering beds of strawberries, etc. Tender shrubs are bound up in straw, or have a barrel or box turned over them.—Grape vines, roses, etc., are bent down and covered with a few inches of earth.—*Am. Agriculturist.*

JERSEY COW, FAITH, Imported for J. Howard McHenry, Esq.

THE JERSEY CATTLE.

The Jersey cattle have now become widely known in this country. Many of them have been imported from an island of the same name in the British Channel, near the coast of France, and they may now be considered, I think, as fully acclimated. They were first introduced over thirty years ago, from the channel islands, Alderney, Guernsey, and Jersey.

The race is supposed to have been derived originally from Normandy, in the northern part of France. The cows have been long celebrated for the production of very rich milk and cream, but till within a quarter of a century they were comparatively coarse, ugly, and ill-shaped. Improvements have been very marked, but the form of the animal is still far from satisfying the eye. The head of the pure Jersey is fine and tapering, the cheek small, the throat clean, the muzzle fine and encircled with a large stripe, the nostrils high and open; the horns smooth, crumpled, not very thick at the base, tapering, and tipped with black; ears small and thin, deep orange color inside; eyes full and placid; neck straight and fine; chest broad and deep; barrel hooped, broad and deep; well ribbed up; back straight from the withers to the hip, and from the top of the hip to the setting on of the tail; tail fine, at right angles with the back, and hanging down to the hocks; skin thin, light color and mellow, covered with fine soft hair; fore legs short, straight and fine below the knee, arm swelling and full above; hind quarters long and well filled; hind legs short and straight below the hocks, with bones rather fine, squarely placed, and not too close together; hoofs small; udder full in size, in line with the belly, extending well up behind; teats of medium size, squarely placed and wide apart, and milk veins very prominent. The color is generally cream, dun, or yellow, with more or less white, and the fine neck and head gives the cows and heifers a fawn like appearance, and make them objects of attraction in the park; but the hind quarters are often too narrow to look well, particularly to those who judge animals from the amount of fat they carry. We should bear in mind, however, that a good race of animals is not always the most beautiful, as that term is commonly understood. Beauty in stock has no fixed standard. In the estimation of some, it results mainly from fine forms, small bones, and close compact frames; while others consider that structure the most perfect, and therefore the most beautiful, which is best adapted to the use to which it is destined. According to the latter, beauty is relative. It is not the same in an animal designed for beef and in one designed for the dairy or for work. The beauty of a milch cow is the result of her good qualities. Large milkers are very rarely cows that pleases the eye of any but a skillful judge. They are generally poor, because their food goes mainly to the production of milk, and because they are selected with less regard to form than to good

milking qualities. We meet with good milkers of all forms, from the round, close-built Devon to the coarsest-boned scrub; but with all their varieties of form and structure, good cows will usually possess certain points of similarity, and well-known marks by which they are known to the eyes of the judge.

It is asserted by Colonel Le Couteur, of the island of Jersey; that, contrary to the general opinion here, the Jersey cow, when old and no longer wanted as a milker, will, when dry and fed, fatten rapidly, and produce a good quantity and excellent quality of butcher's meat. An old cow, he says, was put up to fatten in October, 1850, weighing 1125 pounds, and when killed, the 6th of January, 1851, she weighed 1330 pounds; having gained 205 pounds in ninety-eight days, on twenty pounds of hay, a little wheat straw, and thirty pounds of roots, consisting of carrots, Swedes, and mangold wurzel a day. The prevailing opinion as to the beauty of the Jerseys is based on the general appearance of the cow in milk, no experiments in feeding exclusively for beef having been made, to my knowledge, and no opportunity to form a correct judgment from actual observation having been furnished; and it must be confessed that the general appearance would amply justify the hasty conclusion.

The Jersey is to be regarded as a dairy breed, and that almost exclusively. It is evident, too, that it would not be sought for large dairies kept for the supply of milk to cities; for, though the quality would gratify the customer, the quantity would not satisfy the owner. The place of the Jersey cow is rather in private establishments, where the supply of cream and butter is a sufficient object, or, in limited numbers, to add richness to the milk of large butter dairies. Even one or two good Jersey cows with a herd of fifteen or twenty, will make a great difference in the quality of the milk and butter of the whole establishment; and they would probably be profitable for this, if for no other object.—*Flint's Milch Cows and Dairy Farming.*

Make the Barns Comfortable.—When lumber and labor are so scarce and so high, few will think of building new barns, but they should try to make the old ones comfortable. And this especially on the approach of winter. If the siding is poor, board it up on the inside of the studs, and fill up the space between with swale hay, straw, or shavings. If the underpinning is loose, chink it up before frost. If the floors of the stalls are rotten or worn thin, repair them or pull them up and lay dirt floors before the stock break through and break their legs. Any handy farmer can profitably attend to such jobs on rainy days, with small expense except for boards and nails.—*Am. Agriculturist.*

On Keeping and Wintering Too Much Stock.

BY C. N. BEMENT.

Taking the census of 1850 as the basis of the calculation, and there are, at this time, about six hundred thousand dollars worth of live stock in the United States. Their value exceeds that of all the manufacturing establishments in the country, and also exceeds the capital employed in commerce (previous to the outbreak of the present war,) both inland and foreign. Live stock is an immense national interest, but one that has been sadly overlooked by American statesmen and writers on public economy. How to winter cattle, horses, sheep, hogs and poultry in the most economical way, all things considered, is a subject on which an instructive volume might be written.

In the first place, we should never keep more stock on our farms than we have the means of keeping well. One animal properly cared for and liberally tended, is worth more than two poorly kept. It is a strange but common error in rural economy to appropriate to two or perhaps three animals the food which is barely sufficient to sustain one. This singular error is often adopted by the farmers of an entire town; consequently there is little or no good stock to be found, and the profits resulting from stock-keeping and raising are greatly diminished, while the price of keeping all kinds is, as a necessary and inevitable result, ruinously high.

Every farmer should keep just sufficient stock to economically consume the keep his fields produce, and no more.

The science of animal physiology sheds much light on the business of keeping live stock, both in winter and summer; and, if properly studied in its bearings on this great interest, would add indefinite millions to the income of farmers, and the wealth of the nation. But how can we persuade our readers of the Journal to study animal physiology in connection with the flesh of their domestic animals? It is impossible to show them the valuable fruits of any science relating to husbandry before its seeds are permitted to be planted and cultivated in any State in the Union. Nevertheless, as the truths of science and the truths of empiricism never contradict each other, many learn by the latter not a little of the wisdom taught by the former. Thus science informs *why it is* that cattle and other animals subsist on less food in winter, and keep in better order, if well stabled or housed, and regularly fed, than they will if subjected to the rigors of cold storms, snow, rain, mud, and irregular feeding. The latter system consumes both forage and flesh needlessly, and, of course, involves a prodigious loss to such as follow it.

The advantage of sheltering animals by stables and sheds are better understood now than formerly, although the practice still lingers on some farms where the shivering and bellowing animals speak for themselves, as to its effects. The old plan of stacking hay about the farm, and feeding it to animals in winter, with only a rail fence for shelter, is sometimes seen at the present day. If the ghosts of animals which have died for the want of shelter, could haunt the imaginations of those careless farmers, it might perhaps cause a change in their management. Stacking out hay and fodder causes waste enough in a few years to pay for building good barns, stables and sheds for hay and animals.

The importance of shelter to stock must not be overlooked, it having been fully demonstrated that warmth is equivalent to food. The heat of the animal system is kept up in the same manner as flame is supported—that is, by the union of carbon and oxygen. The animal derives its carbon from the food, which, having undergone digestion, is taken up by the blood and thence conveyed to the lungs, where by the act of respiration it is united with a portion of the oxygen of the atmosphere, and heat is produced. Exposure to a low temperature dissipates the animal heat just as heat is driven off from any other body similarly situated. It is obvious that the natural temperature of the body must be sustained or the animal will perish. As carbon is the only material by which this heat can be furnished, that substance must either be supplied to the blood from the fat and muscle already formed, or the blood must obtain it through the medium of food. If the food is deficient, the supply must be made up from a waste of the bodily parts; and the consequence will be loss of flesh and weight, which, if long continued, may cause the death of the animal, either by finally cutting off the source of heat, or so weakening the system that it yields to the attack of some malady. To sustain the animal in proper condition, then, requires a supply of food proportioned to the degree of cold to which it is exposed; and it is therefore obvious that by avoiding exposure to cold we save food.

Leibig asserts that "our clothing is merely an equivalent for a certain amount of food." In other words, if we keep ourselves comfortable and warm, we cannot eat so much, because the amount of heat to be supplied by the food is diminished.

These observations are as applicable to domestic animals as to ourselves, and they teach the farmer the necessity of providing comfortable shelter for his stock. It has been proved by repeated experiments that animals during the winter season entirely exposed to the weather do not thrive as well, nor keep in as good condition, as those comfortably housed, although they consume from 25 to 30 per cent. the most food; thus showing the owners of stock that if they have not sufficient mercy upon their dumb beasts to provide them shelter in winter, their interests at least should prompt them to do so. An industrious and humane man will always find materials for cover for his stock, even if they be of the rudest and roughest kind.

Warmth is the equivalent of food, because food is used in the bodies of all animals to generate what we call animal heat. How far warm stables will save hay, grain, roots, corn-stalks and other food of domestic animals is not known; but a number of experiments lead to the conclusion that one-third may thus be saved with advantage to stock. A man at work out in the cold of winter, needs double the food that would serve him if he remained idle in a warm room through the winter, and the same is true of an ox or horse. A large share of all domestic animals do not work, and are kept for the production of flesh, milk, or wool. They need a reasonable amount of exercise to preserve their health, as well as good keeping in the matters of food, drink, and shelter.

In wintering hogs, true economy requires that one should keep no more than will give the maximum of flesh for the food consumed. To keep a pig without his gaining in weight involves not only the loss of the food he consumes, but all the injury resulting from the stunting his growth. Few are aware of the damage done to young animals by prematurely arresting the growth of their bones and muscles.—A stunted calf, colt, pig or lamb has received an irreparable injury. You can no more fully make amends for the shock given to the vital functions, than you can give a horse a new seeing eye in place of one that has been put out by violence. No after-feeding of a horse will give him a new eye; no good keeping will develop an animal frame in all its parts after it has been stunted in growth.

Most farmers attempt to keep too much stock, both in winter and summer, for their food to be manufactured in flesh, dairy products, or wool. A few superior animals, well housed in winter, and well fed at all times, yield the largest profit. Of course, stables should be properly ventilated, that all animals may have a full supply of pure air. Most stables, and all sheds, give too much of it, especially in cold weather. Look out for an abundance of straw, or other litter, to absorb all urine, unless you have a tank or other reservoir for it to run into. Manure is as valuable as money at seven per cent. compound interest, for all the crops that manure aids so much in their annual growth sell at high prices. It costs nearly as much to plow, plant, hoe, and harvest an acre of corn to obtain twenty-five bushels as fifty bushels; and manure will double the crop.—*American Stock Journal.*

A man's best fortune—or his worst—is a wife.

WINTER TREATMENT OF SHEEP.

BY T. M. YOUNGLOVE.

Having practiced for several years the system of keeping my sheep in close confinement during winter, I do not hesitate to recommend it to others.—For two winters I kept one hundred wethers under a hay mow, 20 by 30, with a side rack round the outside on the sill, with a double rack through the center which divided the flock into fifties. One 4½ foot door was opened at a time, for an hour in the middle of the day, giving its fifty an opportunity to go into an open yard for water. All the rest of the time they were kept shut close, with only just room to lie down. They did better than those with more room. My ewes were divided into flocks of twenty-five, and were penned by turning two open racks at right angles, giving the ewes a chance at two sides of a rack.

These are watered by setting a box 15 by 24 inches, and 8 inches deep, in the rack and the water carried to it with a pail. This allows two flocks to drink from one box. Before foddering, the box is turned over and and left in the rack- A little meal thrown in the box will stop all leaks.

Ten good sized ewes will drink three pails of water, but will do very well with half that amount daily. The watering should be during the warmest part of the day, and once a day is sufficient. Care should be taken not to over-feed.

I think it is equally detrimental to over-feed sheep on hay, that it is horses or cattle on grain. It is not as well to let a horse or an ox have free access to the oat bin, as to give them a regular meal twice a day. So with the sheep, they should only have what they will eat up clean, in from one hour to one hour and a half. Some practice giving the sheep more than they want, and then clean out the racks for the colts. A careful feeder will only give what is needed, and it will be all eaten up, and with very little care can come very near the actual wants of the flock. I do not hesitate to say it is far better for the flock than over-feeding, whether feed on hay, straw, or grain.

The practice of stacking sheep out, and at best give them an open shed, cannot be too highly censured. The sheep is very regardless of the future. They will frequently stand out during a sharp rain and chew the cud, when they might as well seek a near shelter. The fleece forms a temporary protection, and the sheep feels the storm very little through it, unless accompanied with wind or severe cold.—It is the days that follow a wet fleece that tell on the health and constitution of a flock of sheep. It is this that the flock-master must look to with especial care, as the sheep has only the instinct for his present wants. The future depends on the shepherd. The objection most frequently urged against this method of wintering sheep, is that the ewe has too little exercise for the health and strength of the lamb. I feared that myself, but practice has proved my success, as my flock of lambs can now speak for themselves, as nearly as a dumb animal can speak. They can at least speak understandingly to the eye of a practical wool grower. The flock should be foddered soon after day-light in the morning, and early enough at night to allow them time to clean all up before dark. Sheep kept in this way will have a sprightly look from the eye, and when standing at ease are inclined to stand with their fore and hind feet far apart. While those exposed to all the inclemencies of the weather, will stand with all their feet close together, roach back and dull eye. Too much ventilation is a source of annoyance to a flock. When I keep all the slides closed for weeks, my flock does better than when left open.—*American Stock Journal.*

Why Hogs Eat Ashes, &c.

Mr. Merchi, of Tip Tree Hall, England, has discovered that pigs, when shut up to fatten, are fond of cinders, and improve in condition by eating a certain portion of them every day. Some persons are unable to account for this singular propensity in swine. Poultry are very fond of egg shells, lime, sand, &c., and it is well known the substances are necessary in order to form the shells of eggs, and to furnish material for the bones of fowls. Now it is reasonable to suppose that swine eat ashes and cinders for the purpose of supplying materials for their bones, and this singular instinct in animals so low in the scale of intelligence, is truly wonderful, for ashes contain the ingredients which are necessary to form bones, viz: clay, silicia gelantinized and made soluble by the fire. When hogs are at large, they take in clay and silicia with their food, and eat bones and roots which contain the necessary ingredients; but when they are pent up they endeavor to supply the material necessary for keeping up their frames by devouring ashes and cinders. Let them have plenty of them.

To Save Cabbages for use in Winter.—When the weather becomes frosty cut them off near the head, and carry them, with the green leaves on, to a dry cellar. Break off superfluous leaves, and pack into a tight cask or box, stems upward, and when nearly full cover with the leaves. Secure the box or barrel with a lid against rats. All vegetables and fruit required for winter use, apples and potatoes especially, are preserved best in barrels and boxes in a dry cellar, with light and air excluded, and the temperature as near to the freezing point as practicable, without freezing.—*Cor. Ger. Tel.*

An obedient wife commands her husband.

A Diminutive Breed of Cattle.

In the report of the Secretary of the Massachusetts State Board of Agriculture for 1862, Mr. Flint gives the following description of the cows of Brittainy, a province in the north of France, as observed by him at the International Exhibition in London :

"The little Bretaine cows pleased me exceedingly. Standing only about three feet high on their legs—the most fashionable height, most black and white, now and then, but rarely, a red and white; they are as docile as kittens, and look pretty enough to become the kitchen pet of the hard pressed mountain or hillside farmer, with pastures too short for a grosser animal. Ten pounds of hay will suffice for their limited wants for twenty-four hours, and they would evidently fill a seven quart pail as quick and as long as any other cow.

"Those pretty cows will often hold out in milk, so the herdsmen said, from fifteen to eighteen months after calving, and often begin with the first calf with six or seven quarts a day. The horn is fine, not unlike the Jerseys, but smaller and tapering off gradually, and the escutcheon or milk marks of Guenon generally very good. Good cows are held from sixty to seventy dollars a head, a fancy price of course, but I am not sure that they would not pay six per cent. on the investment as well as most "fancy stocks."

Calves with Sheep.

It is well known, perhaps, to most of your agricultural readers, that late calves, when they come to the barn in the fall, will, if confined in yards with older animals, frequently sicken and become debilitated. Being weak and small, they are usually shoved about, and deprived of their due share of food, and in consequence, "fall away" rapidly.—Now I never allow animals of this description to associate or be confined with larger ones, but put them with my sheep, where there is no danger of their doing or receiving any harm. Sick calves, I have observed, often pick up and devour with avidity the hay and straw from among the sheep dung. It is medicinal, and I know of no article that has a more immediate and salutary effect in restoring diseased calves to health than sheep dung. I have practised this usage for many years, and have never lost an animal, though I have had many sick when they came to the barn.—*Cor. Germantown Telegraph.*

News.—Such has been the encouragement extended to our enterprise, that we now proudly proclaim to all that the "MARYLAND FARMER" is firmly established—and we would call attention to our very liberal list of Premiums offered on another page of this number.

USEFUL RECIPES.

Coughing Horses—Cause and Cure.

It is well known that feeding horses on clover hay often makes them cough, but the why and wherefore may not be so generally known. From observation I have become fully satisfied the manner of feeding hay to horses is the cause. The usual custom is to let them draw it through a rack, thus stripping off the fine dust which adheres to the stalk, which being drawn into the lungs in respiration produces the cough. The cure consists in removing the cause—that is, the racks—and allowing the animals to take their food in the natural way. I have removed all of mine, and now feed my horses on the barn floor, having a breast-work sufficiently high for them to eat over. In this way they can be fed hay without raising a dust, they get none under their feet, and the labor of cleaning out is saved. Whatever is left is easily pushed out with a rake into the yard for the cattle. The dust on the hay will do no harm if taken in the stomach. Since making the improvement above mentioned in my feeding apparatus I am not troubled with conghing horses. There is no patent on my invention; my brethren can use it freely.—*Cor. Country Gentleman.*

Wonderful Liniment.—The following liniment is good for sprains, bruises lameness, &c. :—2 oz. Oil of Spikes—2 oz. Origanum—2 oz. Hemlock—2 oz. Wormwood—4 oz. Sweet Oil—2 oz. Spirits Ammonia—2 oz. Gum Camphor—2 oz. Spts Turpentine. Add 1 quart of proof spirits, 95 per cent., mix well together, and bottle tight. This liniment cannot be equalled, and is actually worth one hundred dollars to any person who keeps valuable horses. Omit the turpentine, and you have the best liniment ever made for human ailments, such as rheumatism, sprains, &c. Try it.—*Wis. Farmer.*

To Cure Scratches.—Feed Glauber or Epsom salts two or three time per day in feed—a small handful or large tablespoonful. Keep heels cleaned with soft soap and warm water. After feeding salts awhile, apply a wash composed as follows:—1 qrt alcohol, 1 oz. each of blue vitriol, copperas, aloes, and gum camphor, put together. This wash will keep calks from shoes from being sore, and is first-rate on any flesh-wound of horse flesh, and of men too. Some put in verdigris, but I never have.—This I give from experience, after doctoring a horse with everything, and after every one's "sure cures, &c., for two winters and springs."

To Cure Loss of Cud.—The Rural New Yorker says:—A piece or two of salt pork cut into a narrow shape three or four inches long, thrust down the animal's throat, is a remedy for the loss of cud.

To thaw frozen potatoes, put them in hot water. Frozen apples in cold water, but use them at once.

THE
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Farmers of Maryland should take a pride in giving a hearty support to the only Agricultural Journal in their State. The "MARYLAND FARMER" commences its Second Volume in January next, when every farmer in the State should be enrolled on our books—and can be, by sending us $1.50—thereby securing a book of 348 large octavo pages treating on every subject interesting to the agriculturist.

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We can assure our friends and the farmers generally, that the "MARYLAND FARMER" is a "fixed institution" for the future. We shall begin the new year, in January next, under the most auspicious surroundings—and would ask our friends to make an effort, in their respective neighborhoods, to increase our list of readers.

JOB PRINTING.

If our friends, either in the city or country, are in want of Printing, we respectfully ask a call at our office, No. 24 S. Calvert street, where we are prepared to execute all descriptions in good style and at market prices.

OUR NEW VOLUME FOR 1865!

With our next number the First Volume of the "MARYLAND FARMER AND MECHANIC" will be brought to a close. Commencing, as we did, in a season of unparalelled difficulty, and subjected, from well known causes, to much heavier expenses than usual, we have, nevertheless, persevered, and have just reason to be proud of the success which has thus far attended our efforts. We know that we have faithfully endeavored, and to the best of our ability, to render good service to our agricultural friends, and we feel quite confident that they will be the first to acknowledge that the trifling cost of the yearly subscription to "THE FARMER," has been amply repaid them in a variety of valuable suggestions.

Impressed with this conviction we feel no hesitancy in calling upon them to assist in extending the circulation of our SECOND VOLUME, the first number of which will be published on the 1st day of January. They know, and therefore need scarcely be told, that every additional subscriber increases, by so much, the sphere of our usefulness, and is at the same time not only an additional assistance to us but is also a frank recognition of the fact that our exertions to promote their interests have not been wholly in vain.

Yet we cannot ask of all those to whom "THE FARMER," in its regular monthly visits has been received as a welcome guest, to render these services wholly without remuneration—although we are sure there are many who will cheerfully do so—and with the honest purpose of inducing those who have the leisure on their hands, and who are ready and willing—as we are happy to say most country people are—to do a good thing, we offer a very liberal List of Premiums, which will be found in another column of our Magazine.

In making these offers, graduated as they are in accordance with the number of subscribers constituting each club, we have desired to meet liberality with liberality, and we sincerely trust that our friends will greet us with a cordial response. We want to commence our new volume with at least a *thousand additional names*, and we can easily obtain them if only a portion of our readers will take the matter in hand in the right spirit. We ask them to show the numbers already published to their neighbours. We solicit their influence in our behalf, as well as that of all others who take an interest in agricultural affairs. We know they can do much for us, that the effort required of them is an easy one, and by us it will be received as a graceful compliment. We have determined, notwithstanding the great advance in paper, labour, &c., to continue at the old rates—$1.50 per annum.

WINTER EVENINGS AT HOME.

The season is now about closing around us when the farmer, having sown and reaped the harvest of the year, is permitted to indulge in a period of comparative repose. The more onerous and active labours of the field are now exchanged for those little attentions which are necessary about the barn and stock yards, and the husbandman, no longer actually fatigued by the burdens of the day, is called upon to share in the long winter evening at the fireside, which, though often the scene of many a reminescence that nestles closely to his heart through all the vicissitudes of the future, not unfrequently hangs heavy on his hands. For such occasions—and to our friends we wish them very few—and for such as are disposed to resort to a quiet and useful pastime, we have a suggestion to make. The labours of the year are now over. Much, we hope, has been contributed to the experience of every farmer. Something new has been either learned or applied, or he has been benefitted by some fact, or at a loss for the proper understanding of some other which might have served him well, and which inquiry—the true talisman of all knowledge—may now elicit.

We suggest and request that such of our readers as feel the impulse to do good—either to themselves or others—shall devote an hour or two occasionally of these winter evenings which sometimes "limp so tediously away," to preparing little communications for the "*Farmer*" which may illustrate their own experience on particular subjects, and shed a light upon the labours of others. A few plain and practical sentences are not difficult to form, although their usefulness may be difficult to estimate. Since it is of plain talk and practical suggestions that the most valuable agricultural literature is composed.

The "*Farmer*" is now, beyond all peradventure, a permanent establishment, and we open our columns for the common benefit, extending a cordial invitation to all. Who will lead in this work, so desirable to the agriculturist of Maryland, where a regular and *permanent* record is now resumed, after an interval of several years, so prejudicial to the "Old Line" State?

☞ Let every reader of the "Farmer," whose year's subscription expires in December, renew the same, and at the same time send us one or more names additional from among his neighbours—that is the way to prove your "loyalty" to the Farmer. Try it, and in earnest.

Remember that self-interest is more likely to warp your judgment than all other circumstances combined; therefore, look well to your duty when your interest is concerned.

The very best kind of agricultural fairs—Farmers' daughters.

The New York State Fair.

The twenty-fourth exhibition of the New York State Agricultural Society, was held at Rochester, in September last, as announced. It was a complete success, judging from the agricultural press of that State. The capacious grounds in all their appointments were admirably arranged for the display of every department. The attendance was large and the deposits of every description of great excellence. The Cattle, Horses, Sheep, Swine, Poultry, &c., presented were of the best of almost every breed,—the Implement and Machinery department was well represented, many of the offerings new, useful and valuable,—the Horticultural display was highly attractive—and the Floral Tent was stocked with the rare and beautiful in floriculture. The press claims that it was among the most successful exhibitions held by the Society. The *Rural New Yorker* in concluding its full and interesting account of the exhibition, says:

"The lessons of the Fair are important. And had we space we should like to write at length thereon. One thing seemed to command the attention of all thoughtful people—the quiet, earnest character of the spectators. No rabble had come together to see fast horses—no noise issued from heated, drunken brawlers—no rowdies filled the air with profanity and obscenity. We did not see an arrest nor hear of one on the grounds. Evidently the lovers of Order and Law, the thoughtful Workers of the Land had come together to see and hear some new thing which should lift them higher as men and women. And we heard no heated political discussions, which so often drive wedges into the good nature of the people at such a time. The work—the legitimate work of the Fair—the showing, and seeing, and receiving and treasuring up its lessons—was begun and prosecuted quietly and earnestly to completion. And in all that makes a fair most worthy the title, this was *a success*."

Efficacy of Onions.—A writer says: We are often troubled with severe coughs, the results of colds of long standing, which may turn to consumption or premature death. Hard coughs cause sleepless nights by constant irritation in the throat, and a strong effort to throw off offending matter from the lungs. The remedy I propose has been tried by me and often recommended to others with good results, which is simply to take into the stomach, before retiring for a night, a piece of raw onion, after chewing. This esculent, in an uncooked state, is very heating, and tends to collect the waters from the lungs and throat, causing immediate relief to the patient. Sliced onion, in a raw state, will collect poison from the air, and also from the human system when taken internally, or externally applied to the arm pits.

VALLEY OF THE PATAPSCO.

For natural beauty, for really fine pictures of rural scenery, the valley of the Patapsco is not easily excelled. Start, for instance, from the Relay House, up the Baltimore & Ohio Railroad. The narrow winding valley, with the woods and rocky hills rising abruptly on each side; the river, now in quiet pools, and now rushing over its primitive granite bed, and the quiet little nooks of greenery, enclosing cottage homes, all combine to charm the beholder, as he is swiftly whirled along. To the eye of a casual observer, there is considerable water power running to waste before reaching Ellicott's Mills.—That romantic village is quickly passed; then the Union Cotton Factory, with its immense overshot wheel some thirty feet high, the fall gained by some two miles of head-race. We notice that the cotton mills have all stopped; all is quiet with them until gold and cotton get a little lower! About four miles above Ellicott's Mills, following the wood-fringed and almost solitary river, we reach Elysville, now called "Alberton." Here is a factory village, built and adorned in the New England style. The mill stands back from the thoroughfare, and is surrounded by a neatly fenced yard, filled with splendid shade trees, and adorned with gravel walks; in fact, the yard and entrance have the appearance of the front of a splendid country residence. The dwellings for the work-people are all new, mostly of brick, and built in a neat and modern style, their surroundings clean and adorned with beautiful gardens and yards. A new store-house and several dwellings are now in the course of erection. The whole place has the appearance of taste and thriftiness, and reflects credit upon the proprietors, whoever they are.

The next stopping place is Woodstock, a village consisting of one house and a water-tank, both built of imperishable granite. Here a county road crosses the stream, and the two counties, Baltimore and Howard, have just concluded to build a new bridge at their joint expense, most probably an iron one.

The next village is Marriottsville. We have left Baltimore county behind us, and the narrowing stream now divides Carroll and Howard counties. This place seems to be in a state of dilapidation and decay, and we understand the whole village is for sale. Here is a limestone quarry, the last on the railroad until we have passed the dividing ridge and get into the valley of the Monocacy.

The next village is Sykesville, containing a manufacturing establishment and an iron furnace; also a good hotel. The land in this region is rolling, and of excellent quality. Farms around here are said to be offered very cheap, and several of our acquaintances have recently purchased. Our worthy ex-Sheriff, Wm. Turner, Esq., can give the reader any information on the subject.

The sun was setting behind the western hills, and the fall crickets were chirping their evening song, as the train stopped at Hood's Mills, our place of destination.—*Baltimore County Advocate.*

Husband Your Corn Fodder.

Your advise as to taking more than usual care of corn fodder, this season, is timely, and I think that many farmers who have hitherto shown so much neglect in curing this valuable fodder will take the hint.

I am well aware that in the field where it grows is the best place to shock it. The weight of green corn, with the ears on, make it very cumbrous in removing off the field when it is even advisable to do so. But in the field it should be shocked in somewhat larger stocks than is common, and not allowed to remain there a day longer than can be helped after husking. It should be immediately tied up in large-sized bundles, and put into barracks or large stacks near the barn, carefully built, and topped with straw to turn the rain.

We shall need the coming winter every bundle of corn fodder we can save, and the better it is cured, the more valuable it will be. Not a stalk should be wasted. Cut up into pieces, steamed and mixed with a little bran or corn meal, cattle and even horses, will eat it with great relish and benefit.

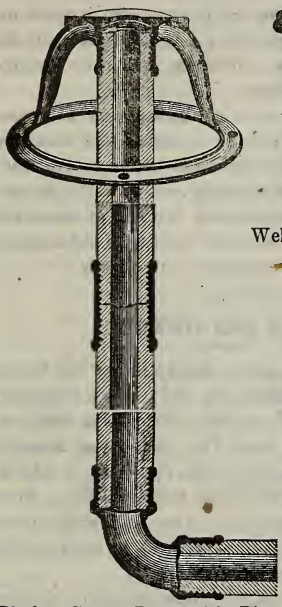
No field of corn should be topped, as was formerly the custom, and continues with some to be so at present. But cut it up at the bottom, shock in dry places, and preserve the whole.—*Cor. Ger. Tel.*

Mushrooms—How to Know them.

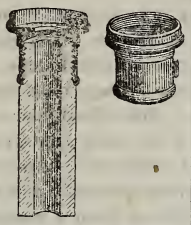
So many accidents from mistaking the poisonous toadstool for the edible mushroom that too much caution cannot be used in gathering them for the table, and none but experienced hands should be trusted. Without giving the botanical characters, we notice some of the marks by which they may be distinguished.

The mushroom has no bad smell. The skin on the top of the mushroom will readily peel off. The gills or plates on the under side of the mushroom are of a white and pinkish or rosy hue, and though turning brownish by age, yet never of that lurid brown of the toadstool. When sprinkled with salt and allowed to stand a few hours, the mushroom gives out juice, but the toadstool becomes dry and leathery. If all these characters are united in the specimen it may be safely eaten, otherwise it should be rejected, as it would be better to throw away acres of mushrooms than to eat one of the poisonous toadstools.

PATENT WOOD PIPE.

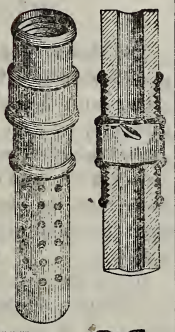


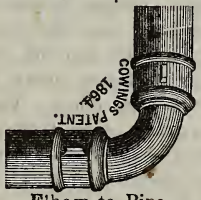
Pitcher Spout Base, with Pipe and Elbow attached.



Well Pump attachment

A





Elbow to Pipe.

PERSPECTIVE VIEW OF THE PIPE.

SECTIONAL VIEW OF THE PIPE.

Among the many improvements for which patents were recently issued at Washington, we notice that the Messrs. Cowing & Co., of Seneca Falls, New York, received Letters Patent for an improvement in the construction of Wood Pipe, illustrations of which are here presented.—This wood pipe is designed to take the place of lead or iron pipe, for pumps, and is claimed to be equal, if not superior, in many respects, to the metal article, while its cost is much less. The extreme high price of lead and iron pipe for pumps has made it necessary to resort to something cheaper, and, if possible, as durable, which essentials it is believed, are embraced in this invention. This pipe is claimed to be so simple in construction that any person can put it together, and in point of durability it will last nearly as long as the metal article—doing good service for from ten to fifteen years. It is provided with couplings by which it can be attached to nearly all the different kinds of pumps manufactured by the company.

The following is from the Circular of the manufacturers, a copy of which is on our tables. They thus speak of it:

"In introducing to the public our newly Patented Wood Pipe and Iron Couplings, we think we have met the wants of the people generally. Why Wood Pipe is the best:

First—Because it is free from the corrosive objections which are so frequently urged against Lead or Metallic Pipes for pumps.

Second—It requires no soldering or mechanic to put it together; it is so simple that any one can do it,—there is but one way, and that is the right way. A person has only to buy his Pump and enough Pipe for his well or cistern, and take it home and put it up himself.

Third—It is several times cheaper than lead pipe, and nearly as durable. It will do good service from ten to fifteen years. It is provided with Couplings by means of which it can be attached to nearly all the different kinds of Pumps we make. It has also a Foot or Safety Valve at the bottom of the pipe, immediately above the Strainer-piece. See cut (A.)"

Flax.—The flax crop of Ireland, for 1864, is the most flourishing and progressive of any other grown in the land. For 207,347 acres of flax grown in Ulster, in 1863, we have 278,254 grown in 1864.—This increase of flax cultivation over Ireland amounts to 87,843 acres. Taking it at a very low price indeed, it represents a sum in its money value of one million sterling for the raw material alone.

Lincoln Pickles.—Lincoln is one of the most famous towns in Massachusetts for raising pickles.—One man, from two and a half acres of vines, has gathered, at two pickings, 67,000 pickles. They pick about three times a week, in warm, fair weather. One man gathered from his five acres, at one picking, 80,000. This was regarded as an ordinary yield. Another man has realized from his ten acres planted with cucumbers, in one season, $1,200.—They are selling them now for $1.80 per thousand.

Hyacinths—in glasses.—Fill the glass with clear water so that the bulb will touch, then place them in the dark for a week or more, until the roots shoot, after that expose them to sun and light. The water should be changed about every three days; to do that, draw the roots out of the glass, and be careful not to break the fibres; they must not be suffered to freeze.

To Advertisers.—Our friends wishing to use the advertising columns of the "*Farmer*" will please send in their copy by the 25th of each month, or earlier, if practicable, as we desire to put the Advertising Sheet to press in time to enable us to be out a few days before the first of the month. Our rapidly increasing circulation require us to go to press earlier than heretofore.

Horticultural.

ADVICE TO TREE PLANTERS.

Mr. Plumb, of Madison, Wis., gives in a late circular the following advice to tree planters :

"1st. For the orchard site, select if possible, some *elevated* and naturally *well drained* location. A good firm soil with substratum of gravel or limestone is desirable.

"2d. Prepare the ground by deep plowing and subsoiling to the depth of six inches or more, especially if the subsoil be a stiff clay. If the land is level raise a ridge by successive plowings of narrow lands, on which set the trees, so that no surface water may remain near the tree.

"3d. Lay off and stake the margin of the orchard plat correctly before setting a tree, then with the plow run a deep furrow on the line of the rows, or on the ridge one way, then stake the other way at exactly right angles, being careful to preserve the margin stakes until the trees are all set.

"4th. Purchase only such trees as you are confident will do well in your location. Trust not to seedlings, as three fouths of them will prove tender, ninety-nine one-hundredths will prove comparatively worthless in fruit, and not one farmer in ten does or will top-graft them after coming into bearing.—This work should be done in the nursery. Select for general orcharding only a few well tried sorts. For the amateur there is a large list of those which from their peculiar qualities, may well repay the trouble of planting. Select *low branched, stocky trees*, two to four years from the graft; the younger the tree, the better the investment usually will be; look out young and healthy roots and plenty of them. Small fibres, called annual roots or feeders cannot always be preserved, but they are easily replaced if the main roots are vigorous, hence the necessity of *shortening in the top* when set out, that the tree sap may not be exhausted before these feeders have got to work again; but *never trim up a tree the first year*, except suckers, which should be rubbed off as they appear.

"5th. When you take your trees from the nursery or package, never expose them unnecessarily to the sun and wind; heel them in immediately, and take up only as many and as fast as wanted to plant.—Never dig a hole deeper than the plow runs unless you dig to a porous subsoil. Make the ground one vast hole with the subsoiler either before or after planting.

"*Beware of deep planting and cramped roots*, but hill up the first year with mulch or manure sufficient to preserve a continual moisture, after that good cultivation with winter mulching will do.—Put no raw manure under or near the roots, but good surface soil all around them, a little good compost is excellent if the soil is lean—also manure on the surface. Use no stakes, but cut back until the tree will stand alone. Watering is of little use, unless in large quantities.

"6th. Plant your orchard the first year with root crops, never sow grain in it unless the trees are broadly and heavily mulched—better to cultivate them annually and carefully early in the season, giving them a moderate top dressing of manure if the soil is lean. Never turn your trees out to grass if you would be a successful fruit grower."

FRUITS AND FLOWERS.

The following graphic description of the Fruits and Flowers on exhibition at the late San Francisco (California) Mechanical Fair, which was held August last, we copy from *The Mining and Scientific Press*, published weekly in San Francisco by Messrs. Dewey & Co., and devoted to mining, science, literature, and the Mechanical Arts, and which compares favorably with any paper of its class in this country :

One of the most beautiful, interesting and suggestive features of the Fair, is the exhibition of the collection of trees, shrubs, flowers and fruits, of which there are large numbers from the California and St. Ann's nurseries, and the orchards of Mr. Nickerson of Lincoln, Placer county, W. O'Donnell, of San Jose, and many others. The collection of plants from the garden of Mr. O'Hara includes seventy-six varieties of evergreen shrubs, principally exotics, from all parts of the world, but all grown in the open air in the genial clime of California.—Among these plants are the beautiful Norfalk Island pine, gum, wattle and other ornamental shrubs from Australia, the famous emblematical holly of Old England, the elegant golden laurel from the West India Islands, fucias, geraniums, of tree like proportions and with blossoms of every tint and hue, the the fan palm from Afric's scorching clime, and many curious, elegant or perfume bearing plants from China, Japan, Australia, India and Europe, among which are fifty varieties of dahlia, 100 of verbenas. Some of the boquets on exhibition by these contributors contain specimens of more than one hundred different kinds of flowers, the perfume of which is truly delicious.

Mr. Lanzesure of the St. Ann's gardens is equally extensive and rich in variety as that of Mr. O'Hara. These two gentlemen, assisted by Mr. O'Donnel, furnish the beautiful collection of evergreens and flowers with which the central pyramid is decorated, and which forms such a beautiful feature of the Fair.

The collection of fruits on exhibition is without

doubt the largest, most beautiful and varied ever exhibited at any Fair in the world, of fruits grown in the open air. There is no country in the world except our own famed California, where the orange and date of the tropics would flourish side by side with the hardy fruits of the frigid North.—There are nó less than 250 varieties of apples, 200 of pears, 50 of peaches, 150 of grapes, 25 of plums, 10 figs, 10 quinces, besides walnuts, peanuts, almonds, oranges, lemons, limes, pomegranates and many others—and such fruits! Not your puny, sickly little apologies for the name they bear, but apples and pears that weigh more than a pound each, peaches equally large, and grapes in clusters feet in length, and of a flavor that would make old Bacchus vintner stare, and Jove's manufacturer of nectar go into ecstasies. With such fruit can it be wondered at that the manufacture of wine is becoming one of the leading interests of the State.

Grape Culture.

Experiments with a Grape Vine.—Not exactly experiment, intended, but accidental manifestation. We have a grape vine, some fifteen feet square, on the south side of the house, where it was well exposed to the sun, and consequently is an early and good grower. At the west end, the wind has free access to that part of the vine; not so at the east. The east part was the thriftiest this spring, in consequence of the west part having its vines too severely bent.—But having overcome this, the west is thriftiest and healthiest—a perfect pleasure to look at. The east suffers. There is rust affecting the leaves, and the fruit is being coated over with a white dust—mildewed. The clusters are ailing (this 4th day of July), the berries are scattered and small. And yet the vine is some four feet from the house, and the foliage not dense—kept down.

Soil for Grapes.—The discussion on Grapes at the late meeting of the Ohio Pomological Society at Toledo, among other things introduced the question as to the soil on which the best quality of grapes were grown. There seemed to be but one opinion, and that was, that a strong, clayey soil, or one of loamy clay with a limestone or even slaty clay subsoil produced grapes much heavier in must, and therefore of better quality than any variety of sand or alluvial deposit. In all cases, however, underdrainage was spoken of as necessary to success in grape growing.

Trimming Grape Vines.—The best time to trim vines is soon after the frosts have caused the foliage to fall, early in November.

To Keep Grapes all Winter.—We believe the best plan to be this: Let the grapes be picked before they are dead-ripe and when perfectly dry; remove all the defective ones; wrap each bunch well in old paper or cotton, and not allow more than two layers in a box; place in a cold, dry room where they will not freeze.

Another.—The French preserve grapes the year round by coating the clusters with lime. The bunches are picked just before they are thoroughly ripe, and dipped in lime water of the consistency of thick cream. They are hung up to remain. The lime coating keeps out the air, and checks any tendency to decay. When wanted for the table, dip the clusters into warm water to remove the lime.

Plant a Grape Vine.—Every family that owns a house, should plant a grape vine—more than one if there be room. It can be trained to grow on a fence or against an out-building, will take up but little space, require a small amount of labor and will repay for the trouble ten-fold. Plant a Delaware, a Concord, a Hartford Prolific, or even an Isabella, and in a year or two it will be covered with noble clusters of grapes that will gladden your household every Autumn with delicious fruit. Try it and see.

The Mind and its Uses.—A man's mind, like his body, strengthens by use, and this is specially true of the will. It is held by many very excellent philanthropists, that some men cannot control their apetites. They say, for example, that an individual may have such a special proclivity to intemperance that he cannot, despite the voice of his reason, his conscience and his interest, keep sober by the exercise of his will. If the inebriate be of unsound mind, this doctrine applies, but not otherwise. In any other case it is as false in logic as it is impolitic and mischievous. It is not that the debauchee's appetites are by nature too strong for this volition, but that he exercises and pampers his appetites, and prostitutes the restraining power which God has given him for good purposes, to bad ones.

Poultices.—As to inflammation, sores, wounds by rusty nails, cuts, the great remedy is warmth and moisture, because these promote evaporation and cooling: whatever kind of poultice is applied, that is best which keeps moist the longest, and is in its nature mild; hence, cold, light, (wheaten) bread, soaked in sweet milk, is one of the very best known. There is no specific virtue in the repulsive remedy of the "entrails of a live chicken," of scraped potatoes, turnips, beets, carrots, or any other scrapings; the virtue consists in the mild moisture of the application. Hence the memory need not be burdened with the recollection of particular kinds of poultices, but only with the principle that that poultice is best which keeps moist longest without disturbance.

Gleanings from the Country Press.

The *Prince Georgian* of September 23d, says:—"The hail storm of last week, we are informed, destroyed the greater part of the Tobacco crops in the lower parts of Calvert, Anne Arundel, and Prince George's counties. The crops planted in these counties was small, not equal to the fourth of an average crop, owing to the scarcity of labor. From the best information we can get, the following will be not far from the average crop in the following counties:

St. Mary's, 400 hhds.—Charles, 500 hhds.—Calvert, 600 hhds.—Prince George's, 700 hhds.—Total, 2,200 hhds.

These counties are the powerful tobacco counties in the State, and in former years yielded more than three-fourths of the entire crop of the State—45,000 hhds. What a falling off, to be sure, in the production of this great staple."

Destructive Fire.—We regret to state, says the *Prince Georgian*, that the handsome residence of Clement Hill, Esq., on his estate adjoining this village, was entirely consumed by fire on Tuesday, 27th of Sept. last. The flames were perceived from the village at about four P. M., and a large number of citizens immediately hurried to the scene and rendered all the assistance that was possible. The flames had got too much headway to be suppressed, but most of the contents of the house were saved—it was the result of accident.

Heavy Frost.—On Sunday night last, says the *Prince Georgian* of the 14th October, this whole region of country was visited by the severest frost that has been known for many years, utterly destroying all the outstanding Tobacco. In some parts of the county there had been little or no housing—in others, the work was somewhat more advanced. All the standing crop has been nearly ruined, together with injury to everything else that frost could affect.—We are told by old residents that no frost, of such severity, and at so early a period, has been known here since a similar visitation on September 29th, 1824—about 40 years ago.

Quite a severe frost fell on Sunday last, says the *Port Tobacco Times*, of October 13th, which has seriously affected, if not entirely ruined a large portion, of the Tobacco crop of our county. But little had been cut and secured owing to the lateness of the planting season. The plants present now a *dejected* appearance, the leaves being twisted up and hanging down, and exhibiting the black and dingy look which betokens the advent of "Jack Frost."

Injury to the Tobacco Crop.—On Sunday night last—says the *St. Mary's Gazette* of Oct. 13th—we were visited with a heavy frost, and the tobacco crop of the county has been badly damaged. Not more than one-fourth of the crop is supposed to have been housed at the time, and the loss will, consequently, be very severe. The crop for the present year is very small, but such is the scarcity of labor here, our farmers were unable to save it from the frost.—The aggregate loss in the county from the frost is estimated at about $50,000.

Still at a Fever Heat.—The *Hagerstown Mail* of Oct. 7th, says: "The rush westward still continues. It seems as if half of our entire population had their heads set on seeing the great West. The fever has not only taken hold of those who have been drafted and are in fear of the draft, but old and young, male and female, are "all aboard" when the iron horse daily takes his departure from this place.—Many go west simply on a visit, but there are very many still who do not expect to return. We do not remember ever to have seen the emigration feeling so general in this section as it is at present, and if it keeps up at the present rate until spring, our population will be sensibly lightened."

Wheat.—We notice in our travels over the county—says the *Baltimore County Advocate*—that there is a very large surface of wheat sown, and as a general thing, it appears to have been gotten in in good order. We think there is more than a usual number of corn fields sown with wheat, in some cases pretty well put in—in others, scratched in in a manner that appears to us a butchering of ground and a waste of seed.

Sorgum Manufacture.—There will be considerable Sorgum Syrup manufactured in Baltimore county this season—says the same paper—and we shall endeavor to get the full statistics for publication. Three mills have been erected in the upper part of the county, which will be worked to their full capacity, as there has been much cane planted, and it has grown well. Alexius G. Green has erected machinery in the 5th District, James L. Gemmill in 6th, and Thomas Meredith in the 7th.

Pumpkins.—Owing to the drouth of the past summer,—says the same paper—there is a great scarcity of pumpkins. We looked for them dotting the corn-fields of our farmers, or nestling in grassy nooks around the potato patches—but they are not there. This will certainly be a season of scarcity of pumkin pies, and the crop will be missed in fattening beeves. Speaking of pumpkins, we learn that there are two vines at Wm. H. Hoffman's middle paper mill, in the 6th District, which have on them 12 pumpkins which will weigh at least 600 pounds. They are of the large variety, and the seeds were found among the rags brought to the mill.

Serious Accident.—On Monday last, says the *Chestertown Transcript* of October 15th, Mr. Jesse Morris, a well known farmer of this county, had his leg broken while driving a wheat drill, by the horses taking fright and running away. The limb is very badly crushed, and it is feared amputation will be necessary.

RECEIVED.

From Isaac Pullen, Hightstown Nurseries, Hightstown, New Jersey, his catalogue of Apple, Pear, Peach, Cherry, Plum and other fruit trees—Grape Vines, and other small fruits—Ornamental Trees—Deciduous and Evergreen trees and Flowering Shrubs in variety, which he offers for sale of the choicest quality and at the lowest market price.

From the "Seneca Falls Pump and Fire-Engine Manufacturing Company," Seneca Falls, New York, their large and elegantly Illustrated Catalogue of Iron and Brass Lift and Force Pumps, Garden Engines, Steel Amalgam Bells, Hydraulic Rams, &c., containing illustrations and descriptions of an endless variety of these machines.

Cotton in India.—An old inhabitant of Berar informs the Bombay *Times* that such has been the influx of silver into the assigned districts of the Deccan, Hyderabad, and so greatly has the cotton crisis enriched the Combee cultivators, that one of them in the performance of some vow, actually had a plowshare made of silver, plowed his field with it for some hours, and then broke it up and distributed the silver amongst five or six cultivators. The people were profoundly impressed by the event, and affirmed that such a thing was never heard of before even in their Shastras.

Ladies Department.

THE FOOLISH QUARREL.

"Hush, Juana; 'tis quite certain
That the coffee was not strong;
Own your error—I'll forgive you—
Why so stubborn in the wrong?"

"You'll forgive me? Sir, I hate you!
You have used me like a churl;
Have my senses ceased to guide me?
Do you think I am a girl?"

"Oh, no! you're a girl no longer,
But a woman formed to please;
And it's time you should abandon
Childish follies such as these."

"Oh, I hate you! But why vex me?
If I'm old, you're older still;
I'll no longer be your victim,
And the creature of your will."

"But, Juana, why this bother?
It might happen I was wroug;
But if common sense inspire me,
Still, that coffee was not strong."

"Common sense! You never had it!
Oh, that ever I was born
To be wedded to a monster,
Who repays my love with scorn."

"Well, Juana, we'll not quarrel—
What's the use of bitter strife?
But I'm sorry I am married;
I was mad to take a wife."

"Mad, indeed! I'm glad you know it;
But if there be law in Spain,
I'll be tied to you no longer—
I am weary of the chain."

"Hush, Juana! Shall the servants
Hear you argue, ever wrong?
Can you not have done with folly?
Own the coffee was not strong."

"Oh, you goad me past endurance,
Trifling with my woman's heart;
But I loathe you, and detest you—
Villain! Monster! Let us part!"

Long this foolish quarrel lasted,
Till Juana, half afraid,
That her empire was in peril,
Summoned never failing aid:

Summoned tears in copious torrents,
Tears, and sobs, and piteous sighs;
Well she knew the potent practice,
The artillery of the eyes.

And it chanced as she imagined—
Beautiful in grief was she—
Beautiful to best advantage;
And a tender heart had he.

Kneeling at her side he soothed her,—
"Dear Juana, I was wrong;
Never more I'll contradict you—
But, oh, make my coffee strong!"

THE TRUE WOMAN.

We give our readers the following very beautiful story, "a waif" on the stream of time. It is a picture of a 'True Woman,' beautiful as it is true, and and as there is a fearful panic over our State, and the prospect of many ruined fortunes, we point to this noble woman as an example worthy of imitation to all those wives who may be similarly situated in these trying times—and happy will be those men and those homes where the "True Woman" is found:

"I'll have to go, Mary, there is no help for it."

She looked—the lady to whom these words where addressed—in a way which showed it had struck and hurt her. She was scolloping a child's skirt, and the needle-work had followed her rapid fingers along the flannel like a line of snowy foam, but now the work fell suddenly, unheeded to the floor

"Ah, John, has it come to that?" asked Mary the wife of John Malcolm; and the soft words were spoken with a kind of gasp, as though just beneath them by a mighty swell and rush of feeling that well nigh overpowered her voice.

"Yes, Mary, it must come. God knows I've struggled hard as any man to weather the storm, and I could have done it, too, if those western houses hadn't gone under. But they will carry us with it."

"I can't realize it yet, John," looking at him in a half bewildered, half-frightened way, that was pitiful to see; the shock for the moment had half stunned her.

"O, Mary, it was hardest for your sake," and the words came in a sharp groan which is terrible to hear from the lips of a strong man. The tones roused her at once into a full consciousness of what had befallen them, and the part she must bear in it.

"Don't John—don't take it so hard," her voice struggling through a sob into a note of cheerfulness and her lips fashioning a smile, which though weak at first, you felt certain would grow stronger each moment; just as you had the sweet promise of the day when the first faint sunbeams struggle weakly out of the morning mist.

"I could have borne up, Mary, if it had not been for you and the children; but that thought cuts me to the core—it's more than I can bear."

And for the first time the young wife and mother heard a sob from the lips of her husband, as he bowed down on the arm of his chair. The pride of his manhood gave way at last, and John Malcolm wept like a little child. Then the woman's heart, the woman's power to cheer and comfort and strengthen, roused themselves, the wave went over her but one moment, and then Mary Malcolm forgot herself, and rose up to the hight of her true womanhood—to the exaltation of self sacrifice.

"John," said the soft brave officer, "do not say that again. Let everything else fail, the heart of your wife never will."

And now she has come close to him, and he felt her small arms around his neck, and her head lay on his shoulder, as tender and confiding as in the days of her prosperity. All through one day he had been looking forward to this hour, and shrinking away from it; once or twice—God forgive him—he had glanced out of his office window to the river, which rolled its dark sullen waters in the distance, and a fierce temptation had rushed over him to hurry out and bury all his pain and anguish under the dark ruffled sheet of water. But John in his secret distress, knew that the temptation was the voice of the devil entering into his soul; he was a man who feared the Lord and kept his commandments; he put the temptation aside.

The young husband had not doubted the wife's heart for a moment; but he had expected to see her almost stricken to the earth, with the first tidings of the ruin of the house in which he was the heaviest partner. He knew that her youth had been nurtured in all the grace and luxury that wealth confers, and he feared the thought of going into the chill and darkness of poverty. He had not looked for loud lamentations, or bitter reproaches, but he dreaded the silent tears, the mute despair of the white face.

So John Malcolm raised his hot face, stained with the tears that were shed for her sake, and looked into the eyes of his wife; she answered with a smile that set her face in a new sacredness and beauty to her husband's eye—a smile so sweet and tender to him, so brave defiant for the worst the world could do for them, and it said to him at once all that her words would and could not.

"Ah, Mary, my wife," said the merchant, "I thought when I came into my house an hour ago, that I was a ruined man; but now I feel as though I were a rich one."

"Ruined with me and the children, John?" and now there was a faint reproach in her voice; but she clung closer to him.

"But, Mary, poor child, you don't know what it is to be poor, to give up so much of ease and luxury to which you have been accustomed."

"You say that, John, before you have tried me, and seen what of courage, and powers of self-sacrifice there are in my nature."

The noble words had a fitting emphasis in the sweet smile, in the steadfast, dauntless tones.

"But we shall have to give up the house, Mary."

"Well, we can be just as happy in a smaller one. Our love has a broader foundation than stately rooms and costly furniture. We'll take a cosy little cottage somewhere in the country, and instead of three servants get along with none."

Hearing these words, John Malcolm looked at his wife, but he did not then say what was in his heart—a thanksgiving to God for the angel he had sent to walk with him. He took her hand and held it close in his, while he told her of the temptation which had beset him before the failure of his house become certain—a temptation by yielding to which he could have saved himself from failure.

But it must have been by dishonest means; by taking advantage of others in his power—in short, by a fraud, which though man's laws never could reach, God's did, with that eternal "Do unto others as you would they should do unto you."

"O, thank God! thank God! you were delivered from this evil," said Mary Malcolm. I had rather you should go down to your grave without a dollar than have committed this sin," and the tears filled her blue eyes as she spoke.

And afterwards there fell a little silence between the two, husband and wife. It was broken by the latter. She looked into the man's face, and her fingers sifted themselves through the dark hair that had no specks of gray, and her look, bright, grateful, loving and touching, conveyed a great deal.

"What is it, Mary?"

"I was thinking, John, how much better off I am to-day than thousands of wives throughout the land. How many there are who sit in their lonely homes, wearing the slow hours away, with hopes and fears for husbands that are gone to the war, and whose dreams at night are filled with visions of battle-fields where the one beloved face lies white and ghastly on the sodden grass, with no hand to offer the last cup of water, no ear to catch the last low word. Ah, John, my eyes have never searched, as so many eyes do, for your name among the list of killed and wounded; and 'failed' seems a word to thank God for, when I think of that."

She was crying now—the broken merchant's wife—crying for joy.

"Mary," said John, I never thought of all this, never once; thank God for it, through this day, that has been the darkest and brightest day of my life; for out of the thick cloud has its blessed light shined."

And after a while their talk went on the practical matters and uses which so nearly concerned them—the retrenching their expenses, and selling off the furniture at once, and settling themselves in the cottage as Mary called it, always giving it the sweet flavor of home.

"I can get a clerkship, and we can contrive to live on a small salary, till the war is over, which God grant may not be long, and afterwards doubtless, I shall see my way clear into business again.—But, Mary, don't you know how folks will pity you behind your back, and say you've come down

dreadfully in the world, and say that it's a shame you ever threw yourself away on such a poor dog as I am."

"They don't know what they are saying, then, and I certainly shan't care for it."

Her smiles where clear and bright now, as sunshine that has struggled with the cloud, and come out of it triumphant.

"Well, Mary, a strong heart makes a stout arm, and I shall toil with both for you and the children, as a man does for those who are dearer than life to him."

"Dear John!" her hand fluttered down on his shoulder in a pretty caressing way, though the tones needed nothing more.

"I came home, Mary, a miserable, discouraged, broken-spirited man; and now I feel as brave, as cheerful, too, as I ever did in my life—aye, richer, for it needed this day and this trial to show me what the woman I have married was worth, and all she could be to me. Oh, Mary, if there were only more wives in the world like you."

Dear reader, have you ever stood, like this woman, face to face with adversity? And have you, too, learned in what spirit to take it?

DOMESTIC RECIPES.

Soups, while deemed indispensable to a fashionable dinner, are yet one of the most economical forms of food. Not the most digestible, however, as used to be deemed when prepared at random for weakly and sick people. It is excellent food for laborers in cold, but too stimulating in warm weather.

First-rate soup, like all first-rate articles, requires the best of ingredients. But the neck, shanks, any good scraps of fresh meat, or old fowls, will make soup as well as the most sightly pieces or youngest birds. Let your meat—beef, mutton, or fowls or game, but cut into small pieces, and the bones cracked up well. Put the pieces into a pot and cover them with as much water as will stew them into rags. This process should be a slow one, and they should be stewed very low; then pour in some boiling water, and keep the soup boiling to within a few minutes of serving. Skim it entirely free from grease. Take out whatever you wish to set away for the morrow before you put in the vegetables, as they in warm weather, give it a tendency to sour. Now cut up vegetables (previously cooked by themselves) in it. Slice potatoes, okra, turnips, carrots—any vegetables you like, or rice or barley. If there is any vegetables, for instance onions, cabbage or tomatoes, which you wish to give distinctive character to your soup, use that vegetable entirely, or in connection with potatoes and okra, which give consistence without any very discernible taste.

If your soup lacks richness, a few spoonfuls of drawn butter will help—if consistence, some gelatine may be dissolved in it. A boquet of sweet herbs is indispensable.

A rich soup is sometimes flavored with wine or catchup. We think it better to offer those articles to each person, as also the castor at the table.

White Soup.—Take two large fat old chickens; chop up the pieces and mash the bones. Put in a few slices of boiled ham, if not too strong. Stew slowly until in rags. Then pour on three quarts of boiling water and boil it down to a half gallon.—Chop up the chicken's heart, the yolks of six hard-boiled eggs, and stir with a teacup half full of grated bread crumbs, into a cup of rich, sweet cream; strain the soup, return it to the kettle with a boquet of herbs, boil five minutes, stir in the cream, etc., and take it off quickly.

Any fowl or soup of game may be made in the same way. Instead of the thickening prepared as above, you may boil in it some rice, or use vermicelli or macaroni, previously simmered until soft.

Vegetable Soups may be made of veal, beef, mutton, fowls or game—the single vegetable you wish being used in it—or,

You may boil any delicate vegetable, such as corn, peas, asparagus, etc., in water until they are nearly dissolved. Always use with them a little rice.—When strained, put in a spoonful of cream, mixed with the beaten yolk of one or two eggs and a piece of butter rolled in flour.

Gumbo.—Take a large fowl, cut into pieces, beat up and fry very brown, and make with it a highly seasoned and rich gravy. Cut into it a half gallon of tender green okra, as many ripe tomatoes, and pour on three pints of boiling water; boil until the vegetables are of the softest consistency and chicken in rags. Stir in a heaping tablespoon of young sassafas leaves, dried and reduced to a powder.—Strain into your tureen hot. When well made, this will almost rope like candy. Pepper, onions, and sweet herbs, are used profusely, in this soup, with salt to savor it.

Soup made of equal quantities of rice and corn, is very palatable. See vegetable soups.

Egg Soup.—Make a rich custard; instead of sweetening, season with salt, pepper and savory herbs.—Melt a lump of butter—a piece large as a walnut, to every quart.

Potatoes and Dry Beans.—Each make a good family soup in winter. You may use slices of pork or old ham not too strong, instead of fresh meat.

Oyster Soup.—Mix one pint of water with whatever liquor you can drain from two quart cans of fine fresh oysters. When this liquor comes to a full boil, put the oysters in, and boil until nearly done; pour in then a quart of fresh milk. Season with salt, pepper, and a blade of mace, if you like it. If you like this a little thick, powder a half dozen crackers fine, and sift them into it.—*Country Gent.*

The Florist.

PILLAR ROSES.

From the Philadelphia *Rural Advertiser* we copy the following, to whom we are also indebted for the above engraving :

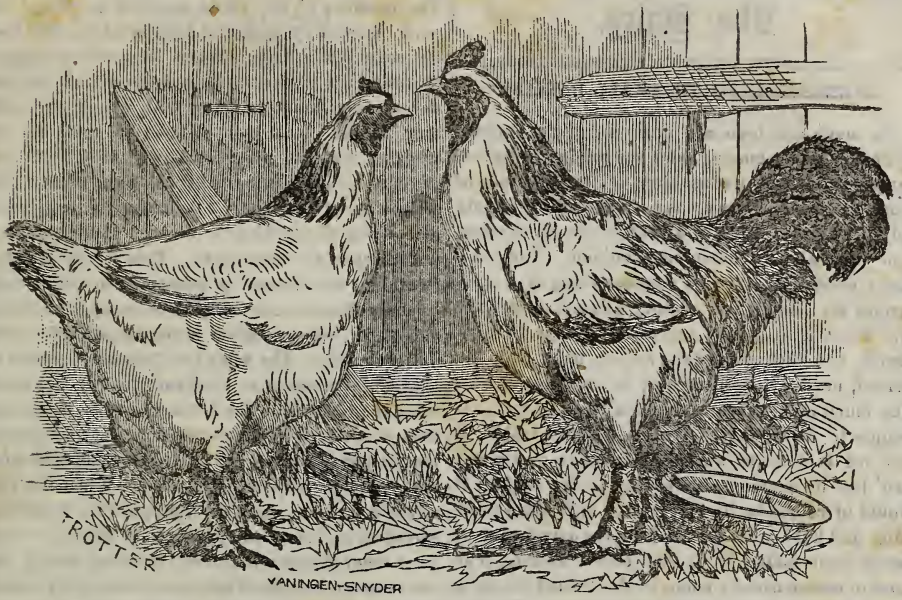
We copy the following from the English Cottage Gardener. Pillar roses, as illustrated in our cut, are an indispensable embellishment in every flower garden. They are easily managed, and, when once fairly rooted and established, require no care. On account of their rapid growth and great luxuriance of flower, there should be at least *one* to each pillar, of what are usually known as climbing roses, and blooming but once. The best of these are Queen of the Prairies, Laure Davoust, Superba, Baltimore Belle, Felicite Perpetuelle, (creamy white,) Melanie de Montjoie, (pure white), Odorata, (creamy white) Myrianthes, (delicate rose.) The last four are often called semper virens or evergreen roses, as they hold their foliage most of the winter.

For perpetual bloomers, to plant in connection with these, we would recommend Gloire de Rosamene, bright scarlet, very showy; Gloire de Dijon, yellow, shaded with salmon; Jaune Dezprez, bright fawn color, large, very fragrant; Joan d'Arc, pure white, vigorous habit; Grandiflora, blush, large; Lamarque, straw with lemon; Madame Jouvain, bright rose, buff center; Pourpre de Tyre, crimson purple; Reine d'Angleterre, fine crimson. The red cedar, found everywhere here, is the proper substitute for the larch, which is more common in England :

There is no kind of shrub, however beautiful, that is used to ornament a garden scene, so well adapted to take various forms as the rose. It can be used as a dwarf tiny plant to fill the smallest bed ; as a bush to plant amongst other shrubs; as one to plant in beds of larger dimensions in groups; as a tall standard, to form avenues of roses on each side of a noble walk; standards can also be planted in groups on a lawn. These also are often planted in the centre of a large circular bed, with half standards around them, and dwarfs in front, thus forming an amphitheatre of roses, which, when in bloom, is one of the finest sights in the floral garden. It can also be used to cover naked banks and dry rocks, and as a climber to ornament the amateur's villa, villa, or the more humble abode of the cottager; also to plant against naked walls or palings, and to form drooping shrubs when grafted on high standards, to wave gracefully their boughs, laden with fragrance and bloom, in the warm gales of summer and autumn. All those forms are very beautiful; but amidst them all, elegant though they are, there are none that show off the beauty and grandeur of the rose with such effect as training them up pillars or poles. The poles, when single, ought to be pretty stout, and set firmly in the ground, or they may be blown down by strong winds. More slender poles may be used if placed in a triangular form, about three feet from each other at the base, and the ends brought together at the top. Tie them together there with some strong tarred cord, or with stout copper wire. They will, in this form, stand the strong gales much better than when planted singly. The best kind of poles for this purpose are young larches—the thinnings of plantations—they last much longer than any other kind. Should you adopt the triangular pillar, you may either plant three roses of the same variety, or have three different kinds—planting one at the foot of each pole. This being a matter of taste, we may leave the choice to the cultivator. Train the roses from pole to pole, so as to completely hide them, when in full foliage and flower; they will then form a beautiful tall pyramid of flowers. Our cottage friends may easily have pillar roses, as in the country such poles may be had almost for nothing. It is true that larches do not grow everywhere; and in the case of there being none near you, other kinds of poles may be used—such as oak, ash or hazel.—These will last a considerable time if the ends that are in the soil be charred, and then dipt in pitch while warm. Set them in the sun some time till quite dry, previously to using them.

To return to the iron pillars. Our amateur friends willing to be at the expense of erecting such, may easily ascertain the cost of any respectable ironmonger. These may either be formed of a single upright rod, or with four rods at about nine inches distant from each other; thus forming a square pillar, fastened with cross pieces of strong wire. The rose may be planted in the center, and the branches as they grow be trained to each corner rod, and small shoots trained between them. Bring all the shoots to the outside, and do not allow any to twine round the rods, but tie them to each with bass matting or small twine. These can then be easily loosened from the pillars whenever they require painting, an operation that must not be neglected, as the iron will soon rust, and thereby injure the plants, and be very unsightly. Previously to planting the roses, make the soil very rich, as you require those roses to grow quickly in order to flower freely, and cover the pillars, arches, and festoons as soon as possible.

She that is born a beauty is half married.



Portrait from Life, of Paschall Morris' Pure Stock of Brahma Fowls.

Weight of Rooster, 12 lbs. Hen, 12 lbs. 2 oz.

We are indebted to the publisher of the Philadelphia *Rural Advertiser*, for the life like drawing of these elegant fowls. The editor says:

Being unable to find in any of the Poultry books or Periodicals, any portraits which did justice to this superior breed of fowls, we have had the above engraving taken, from a drawing from life, of two specimens of our own stock.

The Brahmas are an East India breed, obtained from the banks of the Brahma Pootra, in Asia, from whence they derive their name. For size, beauty, hardiness, prolific layers, especially in the winter season, and for quiet and domestic habits, they are unrivalled. They are so quiet as to prefer going around a six-inch rail, instead of flying or jumping over it. G. B. Smith says of them: "They lay a third larger egg than the Shanghae, and are the best fowl for any one who desires eggs in the winter. Their eggs sometimes weigh from 3 to 4½ oz. each. I have bred fowls for twenty years, and the Brahmas lay a greater weight of eggs in a year than any fowls I am acquainted with."

H. G. White of Massachusetts, to whom Mr. Morris sold a lot of Brahmas last season, writes in a recent number of the Country Gentleman, "that their eggs surpass all others in richness, and that from fifty-five fowls in the month of March last, he obtained ninety-two and a half dozens of eggs. They excel all others as winter layers. They possess size, beauty and hardiness in a great degree, and are very prolific."

The Brahma Pootra fowls are thus described:—"The cock is mostly white, with neck hackles pencilled with black, and rump hackles of a good or yellow color. The tail is black, with glossy green plume feathers. The wings and a portion of the neck hackles, slightly pencilled with black. The pullets are white with black tails, the wings and neck slightly pencilled with black. The comb is small and serrated, though frequently they have the perfect pea comb of the Sumatra Pheasant game fowl, which is always a rare indication of fineness of flesh. The wattles are small, but the ear-lobes are large and pendulous. The legs are yellow, and usually heavy feathers. They have weighed at maturity 25 to 26 pounds per pair."

Care of Hens in Winter.—Farmers as a general rule neglect their hens in winter. They are left to pick up what they can find about the barn-yard; if they get sufficient food, well; if not, no matter.—This is cruel and decidedly unprofitable. If it will not pay to keep them in good condition, it will not pay to keep them at all. They should have a warm and clean place to roost in, and the farmer should see that they never suffer for lack of food. A little light grain of the buckwheat, with a few boiled potatoes, turnips, mangel wurzel, or other succulent food, will generally be paid for by the eggs laid during the winter and the spring fourfold. Hens starved during winter will not furnish many eggs the coming spring.

The Dairy.

CHEESE-MAKING IN SMALL DAIRIES.

So much has been said lately about the Factory system of cheese-making, and the products of a few large dairies, that we lose sight of the multitude of small dairies of a dozen cows or less, which supply no unimportant share of all the cheese for market, and especially for home consumption. There are many persons who regard cheese-making as a mysterious art, and for fear of failure do not undertake it. There is to be sure a great advantage in experience, and this every dairywoman must gain for herself, nevertheless there need be little fear of wasting much milk, when a common sense woman attempts to make cheese, even on a small scale. If any one is about to undertake to make cheese and and has no previous knowledge of the subject, it would of course be best for her to visit some good dairy and learn what she can from the dairy-woman, before undertaking it on her own account. The kind of cheese usually made in the United States is what would be called "English" cheese. Though there are many different kinds made in England, the cheeses of that country differ so much from those of the continent, that ours would be classified with them. As to the production of the cheese closely resembling those of continental Europe—Dutch, French, German, Swiss, etc., of which there are probably 50 entirely distinct kinds—we conceive that there is no difficulty at all; and moreover assure our readers of foreign birth and training, that even passable imitations of those kinds which are imported would meet a ready sale at high prices.

Without discussing the economy of making cheese from a very small number of cows, we merely now consider the method and results. The following process is usually adopted. The night's milk is set in shallow tin pans in a cool place. Butter being an object as well as cheese, the milk should not be more than two or three inches deep. In the morning, while the milking is going on, the night's milk is skimmed and warmed in a brass kettle to the temperature of new milk. The new milk having been brought in, old and new are then mixed in a tub of suitable size. (If the weather is so cool that the milk will not sour, it may be kept over one day, and there will be three milkings of old and one of new.) When the milk is thus made ready the "cheese is set," that is, the rennet is added, and it is allowed to stand quietly for half an hour, for the "curd to come." Arnotto also is added for coloring, if desired. The rennet consists of salted and dried stomach of the calf. This is prepared for use by soaking in water or whey in the "rennet pot." The quantity of the liquid required to "bring the curd" is fixed by trial, and more is added if it does not coagulate in time. When the curd has "come" it is carefully cut across both ways with a one bladed wooden knife, or better with one of steel with four blades. It is then allowed to stand for the whey to separate, which is slowly dipped off, and the curd gently worked with the hand to favor the separation of the whey. To make the curd more firm, some of the whey is warmed in a kettle and poured upon the curd again. This is what is called "scalding the cheese," a misnomer to which must be charged more poor cheese than to any other cause, except perhaps the neglect to cleanse properly all the dairy utensils. The whey for "*scalding*" should be only slightly warm to the hand, that is, not much more than 100° F. The hotter the whey is, the less time is required for the operation, hence there is a temptation to employ hot whey instead of that moderately warm only, as just stated. When this process is completed, the curd is dipped into a strainer, spread in an open basket or box for salting. Then more whey drains out and salt is added, nearly one ounce to ten pounds of curd, and thoroughly mixed. It is now ready for the press, or it may be wrapped in the strainer, a weight placed upon it and kept to go with the next day's curd to make a "double curded cheese."

When this is desired, the curd thus prepared, and not salted, is kept until the new curd is ready, and then it is cut very fine and mixed with it. Some prefer to take the curd when ready for scalding, and hang it up to drain in a strainer. This curd cut up fine is added to the new curd, when both are "scalded" and salted. A cap fitting the inside of the press-hoop, or a strainer cloth is used to hold the curd when it is put in the press for pressing. It is changed at the end of twelve or twenty four hours, the edges if necessary are pared and again pressed. The pressure, either from a lever or screw, should be light at first, but afterwards very heavy. When the cheese comes from the press it should be capped with thin cotton cloth made for the purpose; or these caps are pressed in. Repeated turnings, greasings, and rubbings to keep the cheese from mould and getting out of shape while curing, complete the process. The temperature of the curing room has much influence on the cheese. A kitchen is rather too warm, and in a cold, damp room they cure too slowly and are apt to mould. Now in this way just as good cheese for eating is made in dairies from two to six cows as in those of greater pretentions; in fact some of the best cheese the writer has ever eaten was made from the milk of two cows. Some of the most successful dairy women too, have been those who have taken up the business without previous training, but possessed of good sense and habits of neatness; they have mastered all the "mysteries of cheese making," so that a "*huffy* cheese" or a "cracked cheese," or a "sour cheese," or a "strong cheese," or a "white oak cheese," was unknown on their shelves.—*American Agriculturist.*

The Apiary.

COMMUNICATED FOR THE "MARYLAND FARMER."

APIARY FOR NOVEMBER.

As the frost has already destroyed all pasturage for bees, those which are now deficient in "winter supplies" must remain so, unless provided for; if what honey they have is sealed over in the cells, a small quantity of liquid sweets (honey or sugar syrup properly prepared,) may yet be fed to them; but as they will not be likely to cap it over, and if it remains uncapped in *considerable quantity*, it is likely to ferment and produce dysentery, it is best to furnish it in the comb, already capped, if practicable. Where the movable comb hive is used, this may be done by a simple exchange of combs, taking from such as have a superabundance, a frame or frames of comb filled with honey, and giving to those deficient, in exchange for empty combs. This is of great benefit to *both* colonies, as the one which is deficient in honey may be saved from starvation, whilst the one which possesses the superabundance having to crowd *between cold walls of honey*, would, many of them, perish of cold, but for the empty comb, (which should be inserted near the centre of the hive,) which will enable many of them to crawl *into* the vacant cells; while others, clustering over them, by forming almost a solid mass of *bees*, without intervening partitions of honey, so *concentrate* their heat as to successfully resist the cold, unless their numbers be too small, in which case two or more colonies should be united into one, and the surplus comb placed in a *cool*, dry apartment and protected from mice and moth, until next season. There is now but little, if any, unhatched brood in them, but if any be found, it can (with movable combs,) be put into the hive with the bees to mature, without which it would perish, and, becoming putrid, destroy the comb, or that part of it in which it is being reared. Weak colonies, when united, will not only resist the cold much better together, but require much less honey for their support than if separate. They will also commence breeding *earlier* in spring, and breed much *more rapidly*; it is from *strong colonies alone* that profits arise. Thirty pounds of honey on the first of December will be sufficient for even a very populous colony until spring, when, if the season should be backward, (wet and cold,) and they should require more, it can be fed to them in liquid form without danger, if properly prepared.

Colonies which are queenless, if populous, may be provided with a *fertile* queen by some weak stock (which has one,) being united to it. It is now too late to rear a young queen for it, as the weather would be too cold for her to fly out to meet the drone, if there were any living, (which is not likely to be the case unless in the queenless colony,) and unless fecundated within three weeks after being hatched, she would be likley to remain sterile, and lay *drone* eggs only. Colonies which are populous need no in-door housing. I wintered one (last winter, which was very severe,) in a hive made of boards only one-eighth of an inch in thickness, and another, in one of boards one-fourth of an inch in thickness; both having *abundant upper ventilation*, both "wintering" equally as well, if not better than others, on the same bench in hives made of boards one inch thick; the *moisture*, (which their breathing produces in their hives, and which is often very destructive to them,) was more quickly dried up in the thin, than in the thick hives, while the heat of the sun was earlier felt by the bees in the thin hives, in consequence of which *early breeding* was promoted, and the colonies were very populous, with laborers *by the time the harvest appeared*, and were amongst the most productive and profitable in the apiary this year.—All manipulations and disturbance of bees should cease as soon as cold weather sets in, (unless in the early part of a warm day,) as any excitement causes them to separate and perish of cold, thus diminishing its population at a period when none are being reared; and it is most desirable that it should be populous for their self-preservation. Thinly populated colonies, in common box hives, (or such as do not furnish control of their combs,) which are *filled with honey*, so as to leave inadequate room for the requisite portion of the bees to crawl *into* empty cells, had better be "taken," as such colonies will be so depopulated by spring that breeding then will be so slow, (both in consequence of want of empty cells to breed in, as well as bees to hatch and feed the brood,) that they will probable be worth much less a year hence than now, and produce no profits meantime. Where there are other colonies in the apiary which are deficient in stores, by taking their empty, or only scantily filled combs, with the portion of the honey and *bee bread*, which may be unsaleable in the hive which is *filled with honey*, and transferring and uniting the combs and bees in a Langstroth Movable Comb Hive, the excess of saleable honey may be taken, the bees saved, and unsaleable honey combs and bee bread be used to the best advantage. This may be done on any day which is warm enough for the bees to fly abroad without being chilled.—The short honey harvest of this year, after the immense losses of bees last winter, admonish us of the importance of making *timely*, *adequate* and *proper* provision to prevent a recurrence of such losses the coming winter; and as this should be done whilst the bees are still able to fly out, no time should be lost. It is estimated that at *least three-fourths* of all the bees in our country perished last winter, and, in some cases, almost entire apiaries of over one hundred colonies starved or were frozen to death, principally owing to inadequate provisions. Where colonies have swarmed this season, as well as in some other cases, the same condition is likely to exist from the effects of the short honey harvest this year, and bee keepers should at once give the subject their attention, and, if possible, prevent similar disastrous results this coming winter.

R. C.

COMMUNICATED FOR THE "MARYLAND FARMER."

Mangold Wurtzel Beet Leaves as Food for Cattle.

To the Editors "Maryland Farmer:"

Will you allow me to give the result of a short experience of the value of the leaves of the *Mangold Wurtzel Beet*, as an article of food for cattle.

In this latitude, we all know what an almost unprecedented drought we suffered from during the late summer.

The grass on the field on which my three cows had to depend, was so parched, that at one time I feared that I should have to trench on my stock of hay.

I had in my garden fourteen rows, each seventy yards long, of Mangold Beets. I had read somewhere in an English agricultural book, that the leaves of these Beets were excellent food for cattle, and I determined to test it. The beets were large and growing rapidly, and the leaves luxuriant. About the first of July I told my man to take the leaves from one row, (except the small leaves, to furnish a fresh head,) and to feed the three cows twice a day with them, and then to await, for about two weeks, the effect on the Roots from which they were taken. At the end of that time the leaves on that row had grown so rapidly, that they were hardly distinguishable in size from those on the other rows, and the roots *had been improved.* My pasture was now so parched that my cows were suffering, and their milk had greatly declined in quantity. We then commenced with the second row, and gave the cows about a bushel of leaves each, twice a day. They began to improve; their milk increased; and by the time we had gotten to the end of the fourteenth row, the first row was ready to be stripped again. This was done three times, reaching through nearly two months and a half, during which time my cows derived their chief sustenance from these leaves.—Their milk increased and they decidedly improved in condition, and I am confident that the roots were not injured, but were rather improved.

The crop has been stripped three times, and to-day they have a crop of leaves as heavy as either of the previous ones.

BALTIMORE COUNTY.

BALTIMORE, *October 26th*, 1864.

PATENT CLAIMS

ISSUED FROM THE U. S. PATENT OFFICE,

(APPERTAINING TO AGRICULTURE,)

From the 6th September, to October 19th, 1864.

FROM THE "AMERICAN ARTISAN."

44,148.—Straw Cutter.—A. J. Adams, Climax Prairie Mich.
44,150.—Grain-dryer.—John Babillion, Detroit, Mich.
44,192.—Harvester.—Moses G. Hubbard, Syracuse, N. Y.
44,193.—Cutting Apparatus of Mowing-machines,—Moses G. Hubbard, Syracuse, N. Y.
44,199.—Sorghum Evaporator.—Joseph E. Kendall, Plymouth, Ind.
44,205.—Sheep-rack.—David Lippy, Mansfield, Ohio.
44,206.—Gang-plow.—T. R. Markillie, Winchester, Ill.
44,215.—Plow.—S. J. Olmstead, Binghamton, N. Y.
44,221.—Device for Stretching Wires or Fences.—Wm. H. Robinson and Jacob Behel, Earlville, Ill.
44,224.—Threshing Machine.—Gilbert L. Sheldon, N. Y.
44,248.—Evaporator for Saccharine Juices.—S. F. Woodworth, Iowa Falls, Iowa.
44,259.—Harvester.—D. B. Lucky, Bloomingburgh, N. Y.
44,273.—Corn Planter.—J. Armstrong, Jr., Elmira, Ill.
44,274.—Cattle Pump.—John B. Atwater, Chicago, Ill.
44,277.—Harvesting Machine.—Jeremy Bradley, Cedar Falls, Iowa.
44,280.—Fruit Basket.—Henry Carpenter, N. Y. City.
44,288.—Potato-Digger.—D. N. Denman, Milburn, N. J.
44,289.—Cattle Pump.—Joseph A. Dickson, Sandwich, Ill.
44,305.—Bee-hive.—Wm. Harding, Chariton, Iowa.
44,328.—Seeding Machine.—Joseph Lyle, Clarksville, Iowa.
44,337.—Pump.—Eli Perry, Baldwinsville, N. Y.
44,344.—Horse-Rake.—Fred. Seidle, Mechanicsburg, Pa.
44,351.—Gang-plow.—John Stone, Plattsburgh, Mo.
44,355.—Corn Planter.—Henry Upjohn, Richland, Mich.
44,357.—Corn Planter.—Henry W. Wansborough and Hy. M. Diggins, Cincinnati, Ohio.
44,401.—Sugar Evaporator.—J. S. Corbin, New Richmond, O.
44,404.—Implement for Dividing Clods in the Field.—J. N. Davis, Martinsville, Ohio.
44,406.—Seeding Machine.—Samuel D. Deyo, Strawberry Point, Iowa.
44,413.—Hay Press.—M. Fletcher, Louisville, Kentucky.
44,429.—Cutting and Pressing Tobacco.—W. W. Huse, Brooklyn, N. Y.
44,431.—Hulling Clover and other Seeds.—Wm. Jones and Abraham Miller, Hagerstown, Md.
44,434.—Corn-sheller and Separator.—Elijah Knapp, Jamestown, N. Y.
44,442.—Plow.—David Nelson, Port Washington, Ohio.
44,452.—Harvester.—Wordon P. Penn, Bellville, Ill.
44,454.—Brake for Horse-powers.—Absalom Pursel, New Village, N. J.
44,492.—Seed-sower.—Jasper Scovil, Hamburgh, N. Y.
44,470.—Horse Hay-fork.—Eugene B. Turner, Attica, O.
44,472.—Corn-Planter.—John Thomson and John Ramsey, Aledo, Ill.
44,477.—Mowing Machine—Wm. Van Anden, Poughkeepsie, N. Y.
44,478.—Sheep-rack.—Albert L. Webb, East Troy, Wis.
44,479.—Horse-power.—Seth Wheeler, Albany, N. Y.
44,499.—Limb-supporter.—D. Henry B. Allen, Chelsea, Vt.
44,500.—Harvesting Machine.—William Allen, Worcester, Mass.
44,502.—Seeding Machine.—C. A. Baldwin and C. Abron, Independence, Iowa.
44,512.—Grain Dryer.—Jonathan S. Buel and Samuel A. W. Marsh, Buffalo, N. Y.
44,513.—Grain Binder.—W. W. Burson, Rockford, Ill.
44,535.—Stubble-cleaner for Plows.—John Lacy and George Watkins, Bristol, Wis.
44,540.—Machine for loading Hay.—Henry Maycock, Verona, N. Y.
44,610.—Lifting Pump.—Frederick Crocker, Titusville, Pa.
44,618.—Machine for Shearing Sheep.—William M. Eccles, Oberlin, Ohio.
44,625.—Grain Screen.—J. Hatfield and Wall, Ogden, Ind.
44,625—Bucket for Preserving Butter, Fruit, etc.—E. G. Hoffman, St. Louis, Mo.
44,628.—Mowing Machine.—M. G. Hubbard, Syracuse, N. Y.
44,635.—Distributing Fertilizers.—Horace M. Keith, Pontiac, Mich.
44,650.—Feed Cntter.—J. J. Parker, Marietta, Ohio.
44,651.—Cider Mill.—H. K. Parsons, Harrisburgh, Pa.
44,652.—Pitchfork.—Isaac D. Peck, South Bristol, N. Y.
44,655.—Mowing Machine.—James Pine, Troy, N. Y.
44,657.—Skimmer for Sugar Evaporators.—Thomas J. Price, Industry, Ill.
44,658.—Cultivator and Seeder.—T. Louis Ray, Flora, Ill.
44,659.—Furrowing Device.—U. S. Riggs, Hightstown, N. J.
44,679.—Harvester.—Thomas J. Tindall, N. Y. City.
44,682.—Horse Hay Fork.—J. L. Wells, Stockbridge, N. Y.